AGENDA
HIDALGO COUNTY
COMMISSIONERS COURT
MEETING
September 13, 2016
9:30 A.M.

NOTICE is hereby given in accordance with Chapter 551, Texas Government Code, that a SPECIAL MEETING of the Commissioners Court will be held in the Commissioners Courtroom of the Administration Building, 100 E. Cano, 1st floor, Edinburg, Hidalgo County, Texas. Discussion and possible action relating to the following business will be transacted:

1. **Roll Call**

2. **Pledge of Allegiance**

3. **Prayer**

4. **Approval of Consent Agenda**

5. **District Attorney's Office:**

A. **AI-56305** DA's - State Supplement (1281):
1. Requesting approval to accept the FY 2016-2017 D.A. State Supplement in the amount of $22,500.00 (09/01/2016 to 08/31/2017).
2. Approval of certification of revenues as certified by the County Auditor for the FY 2016-2017 D.A. State Supplement Grant.
3. Approval of appropriation of funds in the amount of $22,500.00.

B. **AI-56294** DA's Title IV-E (1100):
1. Approval of the Title IV-E Grant Budget (Contract #23941008) for October 1, 2016 - September 30, 2017.

2. Approval for County Judge to sign the following documents:
a. Budget
b. Federal Funding Accountability and Transparency Act (FFATA)

6. **Constables:**

A. **AI-56219** Constable Pct. 1 - Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $70,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constables Pct.1 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $70,000.00

B. **AI-56224** Constable Pct 2 Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $70,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for the Hidalgo County Constable Pct 2 portion of the FY 2015 Operation Stonegarden Grant funds in the amount of $70,000.00.

C. **AI-56218** Constable Pct. 3 - Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $100,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constable Precinct 3 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $100,000.00.

D. **AI-56328** Constable Pct. #4:
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY 2015 for the amount of $75,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.

4. Approval of Certification of Revenues as certified by the County Auditor for the FY 2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constable Pct.4 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $75,000.00.

E. **AI-56303** Constable Precinct 4:
Discussion, consideration, and approval to appoint Romeo Rodriguez, Jr.and Alejandro Anzaldua, Jr. as Reserve Deputy Constables by Constable A. "J.R." Gaitan, Constable Precinct 4 in accordance with Texas Local Government Code Section 86.012.

F. **AI-56323** Constable Pct. #4 - TTBH (1285):
Discussion, consideration, and approval to enter into an Interlocal Agreement between Hidalgo County Constable Precinct 4 and Tropical Texas Behavioral Health.

7. **Human Resources:**

A. **AI-56329** HIDTA Task Force (1291) / HIDTA Chapter 59 (1251):
1. Approval of the following personnel actions, effective next full pay period of 09/19/16:

Action	Slot#	Dept./ Program	Position Title	Current Budgeted Salary	Proposed Budgeted Salary
Salary Adjustment / Decrease	G001	270-003	Commander	$67,700.00	$67,700.00
	G025	270-011		$47,800.00	$36,800.00
Salary Adjustment / Increase	G008	270-003	Assistant Commander	$69,000.00	$69,000.00
	G037	270-011		$0.00	$11,000.00

2. Approval to revise the salary schedules in accordance with Commissioners Court action.

8. **Health & Human Services Department:**

A. **AI-56287** 1. Requesting approval to accept the DSHS FY 17 Title V Fee-For-Service Prenatal Medical grant contract amendment #2016-003894-01. The purpose of the amendment is to amend certain contractual language, to add the FY 17 award allocation of $144,029 and to extend the contract term to August 31, 2017.
2. Requesting approval for County Judge to e-sign the Prenatal Medical grant contract Amendment and related documents.
3. Requesting approval of the Certification of Revenue in the amount of $144,029.00.
4. Requesting approval of the budget appropriation in the amount of $144,029.00.
5. Requesting approval to revise the salary schedule.

B. **AI-56281** 1. Requesting approval to accept the DSHS FY 17 Title V Fee-For-Service Child Health grant contract amendment #2016-003931-01. The purpose of this amendment is to amend certain contractual language, to add the FY 17 award allocation of $30,535.00 and to extend the contract term to August 31, 2017.
2. Requesting approval for County Judge to e-sign the Child Health grant contract Amendment and related documents.
3. Requesting approval of the Certification of Revenue in the amount of $30,535.00.
4. Requesting approval of the budget appropriation in the amount of $30,535.00.
5. Requesting approval of the salary schedule.

C. **Health Care Funding District:**

1. Discussion and/or action, including but not limited to Health Care Funding District and/or Expenditures

D. **Indigent Health Care Program:**

1. Discussion and/or action, including but not limited to Indigent Health Care Program and 1115 Waiver and/or Expenditures

9. **Urban County:**

A. **AI-56082** 1. Approval of First Amendment of that certain Interlocal Cooperation Agreement between the County of Hidalgo and the City of McAllen, Texas acting by and though its Public Utility Board for additional sewer connections for Hoehn Subdivision Project.

2. In accordance with Section 791.014 of the Texas Government Code, requesting approval of the Interlocal Cooperation Agreement (ICA) for the Hoehn Subdivision Project.

B. **AI-56101** 1. The Urban County Program is requesting approval of Change Order # 7 to a Construction Contract with VG Vanguard Engineering, LLC for the Hoehn Subdivision Project.

2. Consideration and approval to authorize the County Judge to sign any and all documents associated with Change Orders and/or Amendments pertaining to the Hoehn Subdivision Project.

C. **AI-56242** 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) Professional Engineering Services-Construction Material Geo Technical Testing firms from the County's approved "pool" as graded and evaluated by the City of La Joya, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 27 (2014) La Joya Street Improvement funds.

Professioanl Service Firm	**Grade**	**Ranked**
Millennium Engineering Group	88.67%	
Fulcrum Consulting Engineers	86.00%	
Earth Co.	84.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of Construction Material Geo Technical Testing Services for an Urban County Program Year 27 (2014) La Joya Street Improvements project.

D. **AI-56241** 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of Peñitas, Urban County Program, and Hidalgo County Purchasing Department, in connection with, and funded through Hidalgo County Urban County Program Year 29 (2016) Peñitas Other Public Facility Improvement funds.

Professional Service Firm	**Grade**	**Ranked**

LeFevre Engineering & Management Consulting, LLC	99.00%	
Rio Delta Engineering	84.00%	
CSJ Group	82.33%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Year 29 (2016) Peñitas, Other Public Facility Improvement project.

E. AI-56238 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of Peñitas, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 29 (2016) Peñitas Sidewalk funds.

Professional Service Firm	**Grade**	**Ranked**
LeFevre Engineering & Management Consulting, LLC	93.33%	
CSJ Group	85.33%	
Rio Delta Engineering	82.33%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Year 29 (2016) Peñitas, Sidewalk project.

F. AI-56235 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for Professional Engineering Services-Construction Materials Geo-Technical Testing services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) Construction Materials Geo-Technical Testing engineering firms from the County's approved "pool" as graded and evaluated by the City of San Juan, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 29 (2016) San Juan Street Improvement funds.

Professional Service Firm	Grade	Ranked
Raba-Kistner Consultants, Inc.	97.33%	
L&G Engineering Group	96.00%	
Millennium Engineers Group	87.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of Construction Materials Geo-technical Testing Service for an Urban County Program Year 29 (2016) San Juan Street Improvements project.

G. AI-56234 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of San Juan, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 29 (2016) San Juan Street Improvement funds.

Professional Service Firm	Grade	Ranked
S&B Infrastructure	94.67%	
Javier Hinojosa Engineering	93.33%	
Perez Consulting Engineers	91.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Year 29 (2016) San Juan, Street Improvements project.

H. AI-56127 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for Professional Engineering Services - Construction Materials Geo Technical Testing services;

2. Presentation of the scoring grid for the purpose of ranking by Commissioner's Court of at least three (3) Engineering firms from the county's approved "pool" as graded and evaluated by the City of Weslaco, Urban County Program and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 28 (2015) City of Weslaco – Water/Sewer Improvement funds.

Professional Service Firm	Grade	Ranked

RABA Kistner	99.00%	
Terracon Consultants, Inc.	91.67%	
Millennium Engineers Group	89.33%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of construction material testing services for an Urban County Program Year 28 (2015) City of Weslaco – Water/Sewer Improvements project.

I. **AI-56126** 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services.

2. Presentation of the scoring grid for the purpose of ranking by Commissioner's Court of at least three (3) professional engineering firms from the county's approved "pool" as graded and evaluated by the City of Edcouch, Urban County Program and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Years 26 & 27 (2013 & 2014) City of Edcouch– Street Improvement funds.

Professional Service Firm	**Grade**	**Ranked**
Fulcrum Consulting Services	95.00%	
Guzman & Munoz Engineering and Surveying, Inc	92.33%	
Rio Delta Engineering	83.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Years 26 & 27 (2013 & 2014) City of Edcouch– Street Improvements project.

J. **AI-56066** "Subject to Compliance with HB 1295, when and if Applicable." Urban County Program on behalf of the City of Weslaco is requesting consideration and action to award and enter into a construction contract with RDH Site and Concrete, LLC for the base bid plus alternate for a total contract amount of $277,270.50. Utilizing FY's 25-28 (2012-2015) water/sewer improvements funds.

K. **AI-56057** 1. Subject to Compliance with HB 1295, when and if Applicable, the Urban County Program on behalf of the City of Hidalgo is requesting approval of a best and final negotiated contract for professional engineering services with Hinojosa Engineering, Inc., in the amount of $60,070.00 utilizing CDBG FY 26 (2013) La Joya Street Improvement funds.

2. Requesting approval of Work Authorization No. 1- La Joya 2014 Street Improvements in the amount of $60,070.00.

L. **AI-56048** 1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of Peñitas, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 27 (2014) Peñitas Street Improvement funds.

Professional Service Firm	**Grade**	**Ranked**
Raba-Kistner Consultants, Inc	97.67%	
Millennium Engineering Group	89.33%	
Terracon Consultants, Inc.	88.00%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____
for the provision of material testing services for an Urban County Program Year 27 (2014) Peñitas, Street Improvements project.

10. **Precinct #2 - Comm. Cantu:**

A. **AI-56317** Approval of Memorandum of Understanding between Hidalgo County and AVANCE, INC. to establish an agreement for cooperative efforts in the community to establish a common goal in providing for the healthy development of children and families in Hidalgo County.

11. **Budget & Management:**

A. **AI-56276** Title IV-E Child Welfare Services (1100):
1. Approval of the revised Title IV-E Child Welfare Services Grant Budget (Contract #23941009) for October 1, 2016 - September 30, 2017.
2. Approval for County Judge to sign required documents.

B. **AI-56087** FY 2016 JAG Grant (1282):
1. Approval to accept the FY16 Edward Byrne Memorial Justice Assistance Grant Award (JAG) in the amount of $40,631.00
2. Approval of Certification of Revenues by the County Auditor for the FY16 Edward Byrne Memorial Justice Assistance Grant Award (JAG).
3. Approval of 2016 appropriation of funds for the FY16 (JAG) grant
4. Approval to revise the Salary Schedule with Commissioners Court approval.

12. **Purchasing Department:**
Notes:
A. FOR ANY CONTRACT(S) AWARDED AND APPROVED UNDER THIS AGENDA, EXECUTED COPIES OF THE CONTRACT(S) WILL BE AVAILABLE ON THE COUNTY INTRA-NET WEBSITE AND WILL BE FOWARDED VIA E-MAIL, FAX OR HAND DELIVERED TO HIDALGO COUNTY AUDITOR'S OFFICE.
B. ANY AND ALL REQUESTS FOR PAYMENT(S) APPROVED WILL BE SUBJECT TO COUNTY AUDITORS PROCESSING PROCEDURES INCLUDING AUTHORITY FOR COUNTY TREASURER TO ISSUE PAYMENT(S)/CHECK(S).

A. **Pct. 1**

1. **AI-56279** a. Acceptance and approval of a Professional Services Agreement #C-16-257-09-13 with Jimenez Engineering Solutions, LLC d/b/a INTERNATIONAL CONSULTING ENGINEERS for the purposes of "professional engineering services" for: [FEMA Projects] - located within Hidalgo County Precinct No. 1, subject to compliance with HB1295 [if and when applicable]
- Site 1 Mile 1-1/2 West between Mile 11 North and Mile 12 North Edcouch, TX
- Site 3 Jesus Flores Road Edcouch, TX
- Site 4 Englemen Road between Valdez and FM 2812 Edcouch, TX
- Site 5 Las Cumbres Drive between FM 493 and address 12880 Edcouch, TX
- Site 6 Mile 20 North between FM 493 and Mile 7 West Edcouch, TX

b. Acceptance and approval of Work Authorization No. 1 (with an estimated cost of $ 48,311.66) as submitted by project engineer, Jimenez Engineering Solutions, LLC d/b/a INTERNATIONAL CONSULTING ENGINEERS for: (FEMA) Projects, in connection to agreement # C-16-257-09-13.
- Site 1 Mile 1-1/2 West between Mile 11 North and Mile 12 North Edcouch, TX
- Site 3 Jesus Flores Road Edcouch, TX

- Site 4 Englemen Road between Valdez and FM 2812 Edcouch, TX
- Site 5 Las Cumbres Drive between FM 493 and address 12880 Edcouch, TX
- Site 6 Mile 20 North between FM 493 and Mile 7 West Edcouch, TX

B. Pct. 2

1. **AI-56302** Authority to advertise with approval of preliminary plans and specifications developed by the architect for Renovation of Palmer Pavilion + Les Gilmore Kitchen Upgrades. In the event of no bids received or rejection of bids, approval to re-advertise.

2. **AI-56312** Approval of Work Authorization No. 4 (with an estimated cost of $6,550.25) as submitted by Millennium Engineers Group, Inc., Contract No. C-16-207-05-10 to provide construction materials engineering and testing services for the Pct 2 Sioux Road Project.

3. **AI-56307** Pursuant to contract#C-16-171-04-12 with L&G Consulting Engineers, Inc. (Article 12), a request for approval by engineer to permit the subcontracting of AAMECC, LLC in connection with Work Authorization No. 2 for the demolition of the Pct 2 Mechanic Shop.

C. Pct. 4

1. **AI-56292** Pursuant to Article 14 of the "professional engineering services" agreement #C-16-188-05-10 with Halff & Associates, Inc., is requesting approval to engage the services of SUB-CONTRACTORS (CELSO GONZALEZ dba ADA INSPECTIONS & CHANIN ENGINEERING, LLC) under WA1 in connection to Contract # C-16-188-05-10 (as previously approved by CC on 05/10/16) with adherence to insurance provisions required by said article and, subject to compliance with [HB1295 Form, [when and/or if applicable].

2. **AI-56285** a. Approval to purchase of One (1) 2017 Freightliner 114SD through the County's membership/participation with HGAC awarded vendor, Houston Freightliner, Inc. (Contract #HT06-16)

   b. Approval to purchase of One (1) Hoist from B & C Body Company thru Buyboard contract # 425-13

3. **AI-56243** Approval to purchase one [1] 2017 FreightLiner Water Truck through Hidalgo County's membership/participation with HGAC [Contract#HT06-16; Expires 5/31/18] from awarded COOP vendor, Doggett FreightLiner of South Texas in the amount of ($91,350.00) through Requisition# 303367.

4. **AI-55555** Presentation of low bid received meeting all specifications and/or requirements for the purposes of award of Bid/Contract for: "Pit Run Caliche" - Hidalgo County Pct 4, in connection to project no.: 2016-230-07-06-SGS.

D. IT Department:

1. **AI-56250** Acceptance and approval of the Amendment to the End User License Agreement between Tyler Technologies, Inc. and Hidalgo County for the maintenance and support services.

E. Health & Human Services Dept.

1. **AI-56112** Approval of "First Amendment" to Service Agreement C- 16-089-05-10 between Hidalgo County Health & Human Services Department and Ivan Melendez M.D. (Physician) for the provision of Physician Services (TB Clients) [as permitted under the terms of the agreement] with compliance with HB 1295.

F. District Clerk

1. **AI-56185** Requesting the continuation of the preservation of historical record books volumes and the paper conservation with Kofile Preservation, Inc. thru our membership participation with TXMAS (Texas Multiple Awarded Schedule) 13-36010 in the amount of $124,999.88 for the Hidalgo County District Clerk's Office thru requisition 305228 .

G. Budget & Management

1. **AI-56183** a. Presentation of scoring grid below (for the purposes of ranking by CC as qualified to continue process) of the responses received and evaluated in connection with RFP No. 2016-193-08-10-YSS Quality Claims Administration Services for Workers' Compensation, in order to proceed forward with the negotiation portion of the procurement process;

	Tristar Risk	1-2-1 Claims	Argus Claims

	Management	Inc.	Services, Inc.
Evaluator 1	98	93	*DNMS
Evaluator 2	98	94	*DNMS
Evaluator 3	98	91	*DNMS
Average Scvore	98	92.6	*DNMS
CC RANK			-

*Did Not Meet Specs-Proposal did not include Administration Services

b. Requesting authority for Purchasing Department to enter into negotiations with the number one (1) ranked proposer _____ for: Quality Claims Administration Services for Workers' Compensation.

H. **Sheriff's Office**

1. **AI-56206** a. Requesting exemption from competitive bidding requirements under Tx. L GC, Ch. 262, Sec.024(a)(3) for the purchase of a CAT generator system upgrade.

b. Approval to purchase a CAT Power Generator System Upgrade located at the Hidalgo County Sheriff's Office as proposed by exempted vendor HOLT CO d/b/a HOLT TRUCK CENTER in the amount of $124,918.45.

13. **Open Forum**

14. **Closed Session:**
Commissioners' Court may go into Closed Session pursuant to Chapter 551, Texas Government Code, Sections 551.071 & 551.072 to discuss the following:

A. Real Estate Acquisition

B. Pending and/or potential litigation

C. **AI-56332** CCD-0371-E; Hidalgo County Regional Mobility Authority v. Jose A. Aguilar et al

D. **AI-56255** Claim of Ody Ozuna

15. A. Requesting exemption from competitive bidding requirements under the Texas Local Government Code, Section 262.024(A) (4) "a Professional Service" for the "provision of legal services/representation in connection with litigation."

B. Requesting engagement with the firm of _____ for the "Provision of Legal Services/Representation in connection with Litigation" and authority to submit letter of engagement (subject to compliance with HB1295)

16. **Open Session:**

A. Real Estate Acquisition and appropriation for same

B. Pending and/or potential litigation

C. **AI-56333** CCD-0371-E; Hidalgo County Regional Mobility Authority v. Jose A. Aguilar et al

D. **AI-56256** Claim of Ody Ozuna

17. **Closed Session:**
Commissioners Court may reconvene into Closed Session for the discussion regarding the agenda items listed

18. **Open Session:**
Commissioners Court may reconvene into Open Session for the discussion regarding the agenda items listed

19. **Adjourn**

AI-56305 **District Attorney** **5. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Ramiro Sendejo, DISTRICT ATTORNEY

Submitted By: Ramiro Sendejo, DISTRICT ATTORNEY

Department: DISTRICT ATTORNEY

Information

CAPTION

DA's - State Supplement (1281):
1. Requesting approval to accept the FY 2016-2017 D.A. State Supplement in the amount of $22,500.00 (09/01/2016 to 08/31/2017).
2. Approval of certification of revenues as certified by the County Auditor for the FY 2016-2017 D.A. State Supplement Grant.
3. Approval of appropriation of funds in the amount of $22,500.00.

BACKGROUND

Funding is provided by the State.

Fiscal Impact

FISCAL YEAR: SEE BELOW **ACCT. #:** 6-1281-412-00-080-010-7-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

County Fiscal/Calendar Year: 6
Grant Account Fiscal Year: 7
State Fiscal Year: 2017

Appropriation of funds into DA State Supplement fund in the amount of $22,500.00

"DA State Supplement Grant Revenue"- Acct#6-1281-334-10-080-010-7-000

Grant Period 09/01/2016 to 08/31/2017

No local cash match is required. 100% state funding.

Attachments

APPORTIONMENT GUIDELINES
Appropriation
COR

Form Review

Inbox	Reviewed By	Date

Budget & Management	Veronica Ortiz	09/09/2016 02:15 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Ramiro Sendejo Started On: 09/09/2016 10:02 AM

Final Approval Date: 09/09/2016

Direct deposit

We encourage you to use direct deposit to avoid lost warrants and to speed the availability of your funds. Submit a completed direct deposit form, available at: **http://www.window.state.tx.us/taxinfo/taxforms/74-176.pdf** or call the Comptroller's Judiciary Section for a form at **(800) 531-5441, ext. 3-4886**.

Form completion

Do not complete shaded areas.

The following fields must be completed:

- Name of the DA, CDA or CA and a mailing address for the check or direct deposit notification
- 11 digit TX ID # starting with 7 of the DA, CDA or CA
- From and to dates covered for the expenditures on the voucher
- Grand total for dates covered
- Contact from county or district including telephone number, located below certification

For Staff Salary Amounts Requested:

- Employee name
- Position title
- Amount requested
- Payroll taxes may be included in salary amounts or listed separately

Additional lines are available on the reverse side of the form.

For Office Expenses Requested:

- List rent, utilities, books, telephones and equipment leases separately
- Consumable office supplies can be requested in one sum of up to $500 per month. For totals exceeding $500 per month, provide explanation/itemization of expenses

Additional lines are available on the reverse side of the form.

For Travel Amounts Requested:

List travel on the reverse side and enter the total on the front above the grand total. We do not request any receipts or detail, although all travel must comply with the State Travel Allowance Guide. Go to: **http://fmx.cpa.state.tx.us/fmx/travel/index.php/** to view the travel guide.

- List title or name of the person who traveled and total amount requested for each person.

Signatures:

Signatures must be original. We cannot accept a faxed form.

- Print or type the name of the DA, CDA or CA and complete the applicable blank.
- The DA, CDA or CA must sign and date the form in the certification box.

Please indicate a contact name and telephone number below the certification in case we have questions.

Mail completed form to:

Comptroller Judiciary Section
P.O. Box 13528
Austin, Texas 78711-3528

E-mail judiciary@cpa.state.tx.us
Call (800) 531-5441, ext. 3-4886
for assistance

The apportionment form is located on the Internet at: **www.window.state.tx.us/taxinfo/taxforms/40-forms.html** Scroll to form 73-279, Comptroller Judiciary Apportionment Voucher.

96-854
(Rev. 11/14)

Texas Comptroller of Public Accounts

Office Apportionment Guidelines

- District Attorneys (DAs)
- Criminal District Attorneys (CDAs)
- County Attorneys with Felony Prosecution Authority (CAs)

Apportionment excerpt from current Apportionment Act

Apportionment funds are for the payment of salaries, travel and expenses of assistant prosecutors, investigators and administrative staff. These funds are also eligible to be used for the day to day operating expenses of the office as outlined in the following excerpt from the General Appropriations Act.

Felony Prosecutors: Expenses. For the payment of salaries of assistant district attorneys,investigators and/or secretarial help and expenses, including travel for these personnel as determined by the prosecutors designated in Strategies B.1.l, B.1.2, B.l.3, and B.1.4. Reimbursement shall be limited to expenses for supplies or items that would normally be consumed or utilized within the fiscal year for which the funds in this item are designated. Payments shall not exceed $11,083 per year in single-county districts with populations over 50,000 in Strategy B.1.4; $22,500 per year in districts with populations over 50,000; or, $27,500 per year in districts with populations under 50,000 for those district attorneys, criminal district attorneys and county attorneys performing the duties of a district attorney both prohibited and not prohibited from the private practice of law per Government Code, Chapter 46; and shall be made available in three equal installments issued on the first day of September, January and May of each fiscal year. These payments shall be made directly to the district attorney, criminal district attorney, or county attorney for the purposes of disbursement as required by the attorney. The attorney receiving these payments shall be responsible to the Comptroller for accounting for all expenditures of these funds.

Please provide the Comptroller's Judiciary Section with a detailed list including payroll, services or goods that were paid for by state office apportionment funding. A separate reconciliation form, provided by the state, will serve as a record of actual office expenditures for each preceding year. Please mail the completed form to the Comptroller's Judiciary Section by November 15, following the close of the state's fiscal year. The statute reference for this requirement is Texas Government Code 46.004.

Eligible expenses

(examples, not exclusive)

- Consumable expenses including: pens, paper, files and miscellaneous office supplies
- Law books
- Rental or lease (not lease purchase) of office equipment, computer equipment and copiers
- Subscriptions and dues not for the exclusive use of the DA, CDA or CA
- Travel for office staff (not the DA, CDA or CA) that complies with the State Travel Allowance Guide
- Salaries for office staff
- Utility and telephone expenses
- Rent
- Contract labor

Ineligible expenses

(examples)

- Purchase of capital equipment including desks, chairs, copiers and computers
- Travel for the DA, CDA or CA

Funds availability

Apportionment funds are appropriated by the state fiscal year, which is September through August. For example, fiscal 2015 begins on September 1, 2014 and will end on August 31, 2015.

Funds requested must be for expenses incurred (or expected to be incurred) in the fiscal year that the funds became available.

A third of the funds will be available in September, January and May.

For those with $27,500 available per year, $9,166.66 will be available in September, January and May. For those with $22,500 available per year, $7,500 will be available in September, January and May.

Requesting funds

Request funds by submitting a completed Comptroller Judiciary Apportionment Voucher **http://www.window.state.tx.us/taxinfo/taxforms/73-279.pdf**.

Funds may be requested for anticipated expenses. Vouchers for anticipated expenses should list expenses that are reasonably expected to occur within the dates requested. A voucher submitted in September for $9,166.66 for expenses through December must be for regular expenses expected to occur in that time period.

If an office requests more funds than are available, only the remaining available funds will be reimbursed. If a request for $10,000 is made for funds in September, only $9,166.66 will be disbursed. Another voucher must be submitted when the next third becomes available. Call the Comptroller's Judiciary Section at any time to inquire about the amount available at **(800) 531-5441, ext. 3-4886**.

Call us with questions at: (800) 531-5441, ext 6-5985.

The apportionment form is located at *www.window.state.tx.us/taxinfo/taxforms/40-forms.html*

DATE: September 9, 2016

DEPARTMENT HEAD: Ricardo Rodriguez, Criminal District Attorney

DEPARTMENT NAME: District Attorney's Office

ACCOUNT NUMBER: 6-1281-412-00-080-010-7-XXX

Contact Person: Ramiro Sendejo **Ph#** 292-7604 Ext. 8082

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1281-412-00-080-010-7-114	PART-TIME EMPLOYEES	$11,034.14
6-1281-412-00-080-010-7-211	HEALTH INSURANCE	$6,300.00
6-1281-412-00-080-010-7-212	LIFE INSURANCE	$37.56
6-1281-412-00-080-010-7-220	FICA	$844.12
6-1281-412-00-080-010-7-230	RETIREMENT	$1,265.61
6-1281-412-00-080-010-7-250	UNEMPLOYMENT COMP	$66.21
6-1281-412-00-080-010-7-260	WORKER'S COMP	$12.13
6-1281-412-00-080-010-7-610	GENERAL SUPPLIES	$2,940.23
6-1281-334-10-080-010-7-000	DA State Supplement Grant Revenue	$22,500.00
	TOTAL BUDGET INCREASE (DECREASE)	**$22,500.00**

REASON: 2016-2017 Budget. Funding provided by the State from September 1, 2016 - August 31, 2017.

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

____/____/____
DATE

ATTEST COUNTY CLERK

COUNTY of HIDALGO

EDINBURG, TEXAS 78539

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

September 9, 2016

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioner's court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the Apportionment Funds appropriated in the General Appropriations Act for the District Attorney. These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$22,500.00	Apportionment Funds for State Appropriation Year 2017

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

HIDALGO COUNTY DISTRICT JUDGES

LUIS M. SINGLETERRY JUDGE, 92ND D.C. | RODOLFO DELGADO JUDGE, 93RD D.C. | J.R. "BOBBY" FLORES JUDGE, 139TH D.C. | ROSE GUERRA REYNA JUDGE, 206TH D.C. | JUAN R. PARTIDA JUDGE, 275TH D.C. | MARIO E. RAMIREZ, JR. JUDGE, 332ND D.C. | NOE GONZALEZ JUDGE, 370TH D.C. OVERSEER | LETICIA LOPEZ JUDGE, 389TH D.C. | AIDA SALINAS FLORES JUDGE, 398TH D.C. | ISRAEL RAMON, JR. JUDGE, 430TH D.C. | JESSE CONTRERAS JUDGE, 449TH D.C.

AI-56305 **District Attorney 7. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Ramiro Sendejo, DISTRICT ATTORNEY

Submitted By: Ramiro Sendejo, DISTRICT ATTORNEY

Department: DISTRICT ATTORNEY

Information

CAPTION

DA's - State Supplement (1281):
1. Requesting approval to accept the FY 2016-2017 D.A. State Supplement in the amount of $22,500.00 (09/01/2016 to 08/31/2017).
2. Approval of certification of revenues as certified by the County Auditor for the FY 2016-2017 D.A. State Supplement Grant.
3. Approval of appropriation of funds in the amount of $22,500.00.

BACKGROUND

Funding is provided by the State.

Fiscal Impact

FISCAL YEAR: SEE BELOW **ACCT. #:** 6-1281-412-00-080-010-7-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

County Fiscal/Calendar Year: 6
Grant Account Fiscal Year: 7
State Fiscal Year: 2017

Appropriation of funds into DA State Supplement fund in the amount of $22,500.00

"DA State Supplement Grant Revenue"- Acct#6-1281-334-10-080-010-7-000

Grant Period 09/01/2016 to 08/31/2017

No local cash match is required. 100% state funding.

Attachments

APPORTIONMENT GUIDELINES

Appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 02:15 PM
Final Approval		

Form Started By: Ramiro Sendejo Started On: 09/09/2016 10:02 AM

Minerva Diaz

From: Ramiro Sendejo [ramiro.sendejo@da.co.hidalgo.tx.us]
Sent: Friday, September 09, 2016 10:57 AM
To: Minerva Diaz; Rosalinda Cantu; Sylvia Solis; Deborah Fischer
Subject: FY2017 D.A. STATE SUPPLEMENT CERTIFICATION OF REVENUES
Attachments: 96-854_Apportionment.pdf

Good Morning Minerva,

Please process a Certification of Revenue in the amount of $22,500.00 for the D.A. State Supplement Fiscal Year 2017.

Agenda Item #AI-56305 has been submitted for Commissioners Court approval. I will request for Budget to move this agenda item to September 13, 2016.

If you have any questions please let me know.

Thank You,

--

Ramiro Sendejo
Accountant III
Administration Section
Office of Criminal District Attorney
Hidalgo County, Texas
100 E. Cano, Rm. #131
Edinburg, TX 78539
(956) 292-7604 ext. 8082
(956) 318-2078 FAX
ramiro.sendejo@da.co.hidalgo.tx.us

DATE: September 9, 2016

DEPARTMENT HEAD: Ricardo Rodriguez, Criminal District Attorney

DEPARTMENT NAME: District Attorney's Office

ACCOUNT NUMBER: 6-1281-412-00-080-010-7-XXX

Contact Person: Ramiro Sendejo **Ph#** 292-7604 Ext. 8082

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

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6-1281-412-00-080-010-7-250	UNEMPLOYMENT COMP	$66.21
6-1281-412-00-080-010-7-260	WORKER'S COMP	$12.13
6-1281-412-00-080-010-7-610	GENERAL SUPPLIES	$2,940.23
6-1281-334-10-080-010-7-000	DA State Supplement Grant Revenue	$22,500.00
	TOTAL BUDGET INCREASE (DECREASE)	**$22,500.00**

REASON: 2016-2017 Budget. Funding provided by the State from September 1, 2016 - August 31, 2017.

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

__/__/__
DATE

ATTEST COUNTY CLERK

Direct deposit

We encourage you to use direct deposit to avoid lost warrants and to speed the availability of your funds. Submit a completed direct deposit form, available at: **http://www.window.state.tx.us/taxinfo/taxforms/74-176.pdf** or call the Comptroller's Judiciary Section for a form at **(800) 531-5441, ext. 3-4886**.

Form completion

Do not complete shaded areas.

The following fields must be completed:

- Name of the DA, CDA or CA and a mailing address for the check or direct deposit notification
- 11 digit TX ID # starting with 7 of the DA, CDA or CA
- From and to dates covered for the expenditures on the voucher
- Grand total for dates covered
- Contact from county or district including telephone number, located below certification

For Staff Salary Amounts Requested:

- Employee name
- Position title
- Amount requested
- Payroll taxes may be included in salary amounts or listed separately

Additional lines are available on the reverse side of the form.

For Office Expenses Requested:

- List rent, utilities, books, telephones and equipment leases separately
- Consumable office supplies can be requested in one sum of up to $500 per month. For totals exceeding $500 per month, provide explanation/itemization of expenses

Additional lines are available on the reverse side of the form.

For Travel Amounts Requested:

List travel on the reverse side and enter the total on the front above the grand total. We do not request any receipts or detail, although all travel must comply with the State Travel Allowance Guide. Go to: **http://fmx.cpa.state.tx.us/fmx/travel/index.php/** to view the travel guide.

- List title or name of the person who traveled and total amount requested for each person.

Signatures:

Signatures must be original. We cannot accept a faxed form.

- Print or type the name of the DA, CDA or CA and complete the applicable blank.
- The DA, CDA or CA must sign and date the form in the certification box.

Please indicate a contact name and telephone number below the certification in case we have questions.

Mail completed form to:

Comptroller Judiciary Section
P.O. Box 13528
Austin, Texas 78711-3528

E-mail judiciary@cpa.state.tx.us
Call (800) 531-5441, ext. 3-4886
for assistance

The apportionment form is located on the Internet at: **www.window.state.tx.us/taxinfo/taxforms/40-forms.html**
Scroll to form 73-279, Comptroller Judiciary Apportionment Voucher.

96-854
(Rev. 11/14)

Texas Comptroller of Public Accounts

Office Apportionment Guidelines

- District Attorneys (DAs)
- Criminal District Attorneys (CDAs)
- County Attorneys with Felony Prosecution Authority (CAs)

Apportionment excerpt from current Apportionment Act

Apportionment funds are for the payment of salaries, travel and expenses of assistant prosecutors, investigators and administrative staff. These funds are also eligible to be used for the day to day operating expenses of the office as outlined in the following excerpt from the General Appropriations Act.

Felony Prosecutors: Expenses. For the payment of salaries of assistant district attorneys,investigators and/or secretarial help and expenses, including travel for these personnel as determined by the prosecutors designated in Strategies B.1.1, B.1.2, B.1.3, and B.1.4. Reimbursement shall be limited to expenses for supplies or items that would normally be consumed or utilized within the fiscal year for which the funds in this item are designated. Payments shall not exceed $11,083 per year in single-county districts with populations over 50,000 in Strategy B.1.4; $22,500 per year in districts with populations over 50,000; or, $27,500 per year in districts with populations under 50,000 for those district attorneys, criminal district attorneys and county attorneys performing the duties of a district attorney both prohibited and not prohibited from the private practice of law per Government Code, Chapter 46; and shall be made available in three equal installments issued on the first day of September, January and May of each fiscal year. These payments shall be made directly to the district attorney, criminal district attorney, or county attorney for the purposes of disbursement as required by the attorney. The attorney receiving these payments shall be responsible to the Comptroller for accounting for all expenditures of these funds.

Please provide the Comptroller's Judiciary Section with a detailed list including payroll, services or goods that were paid for by state office apportionment funding. A separate reconciliation form, provided by the state, will serve as a record of actual office expenditures for each preceding year. Please mail the completed form to the Comptroller's Judiciary Section by November 15, following the close of the state's fiscal year. The statute reference for this requirement is Texas Government Code 46.004.

Eligible expenses

(examples, not exclusive)

- Consumable expenses including: pens, paper, files and miscellaneous office supplies
- Law books
- Rental or lease (not lease purchase) of office equipment, computer equipment and copiers
- Subscriptions and dues not for the exclusive use of the DA, CDA or CA
- Travel for office staff (not the DA, CDA or CA) that complies with the State Travel Allowance Guide
- Salaries for office staff
- Utility and telephone expenses
- Rent
- Contract labor

Ineligible expenses

(examples)

- Purchase of capital equipment including desks, chairs, copiers and computers
- Travel for the DA, CDA or CA

Funds availability

Apportionment funds are appropriated by the state fiscal year, which is September through August. For example, fiscal 2015 begins on September 1, 2014 and will end on August 31, 2015.

Funds requested must be for expenses incurred (or expected to be incurred) in the fiscal year that the funds became available.

A third of the funds will be available in September, January and May.

For those with $27,500 available per year, $9,166.66 will be available in September, January and May. For those with $22,500 available per year, $7,500 will be available in September, January and May.

Requesting funds

Request funds by submitting a completed Comptroller Judiciary Apportionment Voucher **http://www.window.state.tx.us/taxinfo/taxforms/73-279.pdf**.

Funds may be requested for anticipated expenses. Vouchers for anticipated expenses should list expenses that are reasonably expected to occur within the dates requested. A voucher submitted in September for $9,166.66 for expenses through December must be for regular expenses expected to occur in that time period.

If an office requests more funds than are available, only the remaining available funds will be reimbursed. If a request for $10,000 is made for funds in September, only $9,166.66 will be disbursed. Another voucher must be submitted when the next third becomes available. Call the Comptroller's Judiciary Section at any time to inquire about the amount available at **(800) 531-5441, ext. 3-4886**.

Call us with questions at: (800) 531-5441, ext 6-5985.

The apportionment form is located at *www.window.state.tx.us/taxinfo/taxforms/40-forms.html*

AI-56294 **District Attorney** **5. B.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Ramiro Sendejo, DISTRICT ATTORNEY

Submitted By: Ramiro Sendejo, DISTRICT ATTORNEY

Department: DISTRICT ATTORNEY

Information

CAPTION

DA's Title IV-E (1100):
1. Approval of the Title IV-E Grant Budget (Contract #23941008) for October 1, 2016 - September 30, 2017.

2. Approval for County Judge to sign the following documents:
a. Budget
b. Federal Funding Accountability and Transparency Act (FFATA)

BACKGROUND

The State reimburses the county for handling of the Title IV-E Child Welfare cases. AI-56276 (CC 9/13/16) - Approval of the Title IV-E Child Welfare Services Grant Budget.

Fiscal Impact

FISCAL YEAR: 2017 **ACCT. #:** SEE BELOW

FUNDS AVAILABLE Y/N?: N/A **MATCHING FUNDS Y/N?:** SEE BELOW

BUDGETARY IMPACT:

The County matches 100% of all costs related to Title IV-E County Child Welfare Services. However, the Texas Department of Family of Family and Protective Services reimburses the county for part of the expenses when the county handles Title IV-E cases. Actual reimbursement is based on Eligible Population Rate (EPR) in effect for the county during the month in which expenses are incurred. The reimbursement is then receipted in a General Fund Revenue account (Acct #6-1100-331-12-080-001-0-000 TDPRS-TITLE IV-E CO LEGAL SRV CONTRACT).

Attachments

LETTER
TITLE IV E BUDGET LEGAL
FFATA CERTIFICATION

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 08:18 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Ramiro Sendejo Started On: 09/08/2016 03:49 PM
Final Approval Date: 09/09/2016

TEXAS DEPARTMENT OF FAMILY AND PROTECTIVE SERVICES

COMMISSIONER
H. L. Whitman, Jr.

September 7, 2016

Hidalgo County
County Treasurer
2810 South Business Highway 281
Edinburg, **,** TX 78539-6243

Re: FY 2017 – County Legal Services AND Welfare Board IV-E Annual Review

Contract Number: 23941009 & 23941008

Dear Contractor:

The Texas Department of Family and Protective Services (DFPS) must comply with federal regulations by conducting an annual review of your Title IV-E contract which includes the following contract actions:

- Identifying the budget to be used for the new contract period. This may include obtaining and approving a revised budget or confirmation of the continued use of the most current budget;
- ensuring documentation of the most current signature designation authority as documented on Form 2031, Signature Authority Designation;
- obtaining a current Form 4734 Federal Funding Accountability and Transparency Act (FFATA) Certification; and
- ensuring current areas of associated risk to the agency are annually identified.

Attached are the documents required to be maintained:

- Budget Form 2030CWIVE;
- Budget Form 2030CLIVE
- Signature Authority Designation, Form 2031;
- Federal Funding Accountability and Transparency Act (FFATA) Certification Form 4734;
- Internal Control Certification, Form 9007ICC
- Risk Analysis Questionnaire, Form 9105.

Please return the budget forms and their associated narrative to support the projected expenditures. If your agency claims an indirect rate, return your agency's most current, approved indirect rate. If a revised budget is not necessary, indicate in your return correspondence that the budget will remain as previously submitted.

Return Forms 4734, 9007ICC and 9105.

Return Form 2031 only if the signature authority has changed.

Return the enclosed documents to me at the following address by September 14, 2016.

Oralia S. Balleza
CPS Contract Manager
2520 S. Veterans Blvd.
Edinburg, TX 78539
oralia.balleza@dfps.state.tx.us

If you have any questions regarding the proper completion of the enclosed documents, please contact me at 956-316-8269 or oralia.balleza@dfps.state.tx.us.

Sincerely,

Oralia S. Balleza
CPS Contract Manager

cc: Candelaria Benavidez, CPS Contracts Program Director, Edinburg, 108-1

Enclosure(s):

- Budget for Title IV-E County Child Welfare Service
- Budget for Title IV-E County Legal Services
- Signature Authority Designation (Form 2031)
- Federal Funding Accountability and Transparency Act (FFATA) Certifications, (Form 4734)
- Internal Control Certification, Form 9007ICC
- Risk Analysis Questionnaire, Form 9105

Texas Dept. of Family and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Summary			
	County:	**Hidalgo County**	
	Contract Number:	**23941008**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Cost Category	**Estimated Total Expenses Allocable to Title IV-E**	**Total Anticipated Federal Reimbursement***	**Total Anticipated County Match**
A. Administration			
A.1. Direct Personnel Salaries	$275,928.03	$59,917.77	$216,010.26
A.2. Direct Personnel Fringe Benefits	$88,684.77	$19,257.90	$69,426.87
A.3. Direct Personnel Travel	$2,925.00	$635.16	$2,289.84
A.4. Direct Materials and Supplies	$5,000.00	$1,085.75	$3,914.25
A.5. Direct Equipment	$1,900.00	$412.59	$1,487.42
A.6. Direct Other Costs	$131,500.00	$28,555.23	$102,944.78
Total Administration	*$505,937.80*	*$109,864.39*	*$396,073.41*
B. Training			
B.1. Title IV-E Training (75%)	$29,000.00	$9,446.03	$19,553.98
B.2. Title IV-E Fostering Connections Training (75%)	$29,000.00	$8,186.56	$20,813.45
B.3. Non-Title IV-E Training (50%)	$23,000.00	$4,994.45	$18,005.55
Total Training	*$81,000.00*	*$22,627.03*	*$58,372.97*
C. Indirect Costs (if applicable)			
Total Indirect Costs	*$0.00*	*$0.00*	*$0.00*
Grand Total	**$586,937.80**	**$132,491.42**	**$454,446.38**

***Estimated Federal Reimbursement for expenses based on Eligible Population Rate (EPR) during 3rd quarter of the preceding fiscal year:** **43.430%**

Actual reimbursement will be based on EPR in effect for the county during the month in which expenses were incurred.

Indirect Cost Rate, if applicable (attach a copy of the approved Certificate of Indirect Costs): **0.000%**

Contractor Certification

_____ _____

Signature ***Date***

Ramon Garcia, County Judge

Printed Name & Title

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Administration
A.1. Direct Personnel Salaries

County: Hidalgo County

Contract Number: 23941008

Budget Effective Date: 10/1/2016-9/30/2017

Position or Title	A	B	C	D	E	F
	Monthly Salary	% of Time Spent on IV-E Activities	Number of Months of Service	Estimated Total Expense* (AxBxC)	Anticipated Federal Reimbursement (estimated EPR x 50% FFP)	Anticipated County Match
Assistant District Attorney III	$5,833.33	25%	12	$17,499.99	$3,800.12	$13,699.87
Assistant District Attorney III	$4,643.42	100%	12	$55,721.04	$12,099.82	$43,621.22
Assistant District Attorney II	$5,291.67	100%	12	$63,500.04	$13,789.03	$49,711.01
Assistant District Attorney II	$5,291.67	100%	12	$63,500.04	$13,789.03	$49,711.01
Administrative Assistant IV	$3,650.58	100%	12	$43,806.96	$9,512.68	$34,294.28
Administrative Assistant II	$2,658.33	100%	12	$31,899.96	$6,927.08	$24,972.88
			Total Direct Personnel Salaries	$275,928.03	$59,917.77	$216,010.26

*estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Administration A.2. Direct Personnel Fringe Benefits			
	County:	**Hidalgo County**	
	Contract Number:	**23941008**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Type of Fringe Benefits	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
		$0.00	$0.00
Health Insurance	$32,382.00	$7,031.75	$25,350.25
Life Insurance	$197.19	$42.82	$154.37
Social Security (FICA)	$21,108.49	$4,583.71	$16,524.78
Retirement	$29,138.00	$6,327.32	$22,810.68
Unemployment Comp	$1,655.57	$359.51	$1,296.06
Workers' Comp	$303.52	$65.91	$237.61
Longevity	$3,900.00	$846.89	$3,053.12
		$0.00	$0.00
		$0.00	$0.00
Total Direct Personnel Fringe Benefits	$88,684.77	$19,257.90	$69,426.87

*estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Administration A.3. Direct Personnel Travel			
	County:	**Hidalgo County**	
	Contract Number:	**23941008**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Type of Travel Expense Note: only include travel NOT related to personnel training	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
Assistant District Attorney III	$225.00	$48.86	$176.14
Assistant District Attorney III	$900.00	$195.44	$704.57
Assistant District Attorney II	$900.00	$195.44	$704.57
Assistant District Attorney II	$900.00	$195.44	$704.57
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
Total Direct Personnel Travel	$2,925.00	$635.16	$2,289.84

*estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Please refer to the Texas State Comptroller's office for current mileage rates.
https://fmx.cpa.state.tx.us/fmx/travel/textravel/trans/personal.php

Texas Dept. of Family and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Administration A.4. Direct Materials and Supplies			
	County:	**Hidalgo County**	
	Contract Number:	**23941008**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Materials and Supplies (description)	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
file folders, pens, pads, labels, toners	$5,000.00	$1,085.75	$3,914.25
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
Total Direct Materials and Supplies	$5,000.00	$1,085.75	$3,914.25

*estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Administration
A.5. Direct Equipment

County: Hidalgo County

Contract Number: 23941008

Budget Effective Date: 10/1/2016-9/30/2017

Equipment (description)	**Method Used** (rent/lease/ purchase)	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
Printers	purchase	$900.00	$195.44	$704.57
Scanners	purchase	$1,000.00	$217.15	$782.85
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
Total Direct Equipment		$1,900.00	$412.59	$1,487.42

*estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Administration A.6. Direct Other Costs			
	County:	**Hidalgo County**	
	Contract Number:	**23941008**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Other Costs (description)	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
Reference Materials (book)	$1,000.00	$217.15	$782.85
Court Cost-Court Transcriptions, citations	$128,000.00	$27,795.20	$100,204.80
Telephone	$500.00	$108.58	$391.43
Sign Language Interpreter	$2,000.00	$434.30	$1,565.70
		$0.00	$0.00
Total Direct Other Costs	$131,500.00	$28,555.23	$102,944.78

*estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

B. Training

B.1. Title IV-E Training (75%)

County: Hidalgo County

Contract Number: 23941008

Budget Effective Date: 10/1/2016-9/30/2017

Training (Description and Title)	Registration* (amount allocable to Title IV-E)	Lodging* (amount allocable to Title IV-E)	Meals* (amount allocable to Title IV-E)	Transportation* (amount allocable to Title IV-E)	Subtotal	Number of Employees Attending	Estimated Total Expense*	Anticipated Federal Reimbursement	Anticipated County Match
NOTE: Form 9321 *Training Expense Documentation Form* must be submitted to DFPS for review/approval by Federal Funds prior to training.									
Title IV-E Seminars	$1,000.00	$5,000.00	$250.00	$1,000.00	$7,250.00	4	$29,000.00	$9,446.03	$19,553.98
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
				Total Training			$29,000.00	$9,446.03	$19,553.98

*estimated amount allocable to Title IV-E

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

B. Training

B.2. Title IV-E Fostering Connections Training (75%)

County: Hidalgo County

Contract Number: 23941008

Budget Effective Date: 10/1/2016-9/30/2017

Training (Description and Title)	Registration* (amount allocable to Title IV-E)	Lodging* (amount allocable to Title IV-E)	Meals* (amount allocable to Title IV-E)	Transport-ation* (amount allocable to Title IV-E)	Subtotal	Number of Employees Attending	Estimated Total Expense*	Anticipated Federal Reimbursement	Anticipated County Match
NOTE: Form 9321 *Training Expense Documentation Form* must be submitted to DFPS for review/approval by Federal Funds prior to training.									
Title IV-E Seminars	$1,000.00	$5,000.00	$250.00	$1,000.00	$7,250.00	4	$29,000.00	$8,186.56	$20,813.45
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
				Total Training			$29,000.00	$8,186.56	$20,813.45

*estimated amount allocable to Title IV-E

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

B. Training

B.3. Non-Title IV-E Training (50%)

County: **Hidalgo County**

Contract Number: **23941008**

Budget Effective Date: **10/1/2016-9/30/2017**

Training (Description and Title)	Registration* (amount allocable to Title IV-E)	Lodging* (amount allocable to Title IV-E)	Meals* (amount allocable to Title IV-E)	Transportation* (amount allocable to Title IV-E)	Subtotal	Number of Employees Attending	Estimated Total Expense*	Anticipated Federal Reimbursement	Anticipated County Match
NOTE: Form 9321 *Training Expense Documentation Form* must be submitted to DFPS for review/approval by Federal Funds prior to training.									
Assistant District Attorneys	$1,600.00	$2,600.00	$550.00	$1,000.00	$5,750.00	4	$23,000.00	$4,994.45	$18,005.55
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
					$0.00		$0.00	$0.00	$0.00
				Total Training			$23,000.00	$4,994.45	$18,005.55

*estimated amount allocable to Title IV-E

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Legal Services Contract

Form 2030CLIVE

Budget Narrative

County:	**Hidalgo County**
Contract Number:	**23941008**
Budget Effective Date:	**10/1/2016-9/30/2017**

Clearly describe each expense to be incurred and billed to this contract, including justification for expense. Refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.s

A. Administration

A.1. Direct Personnel Salaries

Salaries of employees that will be working on Title IV-E files.

A.2. Direct Personnel Fringe Benefits

Fringe benefits of employees that work on Title IV-E files.

A.3. Direct Personnel Travel

Assistant District Attorneys travel allowance ($900.00 yearly) is given to be able to make any necessary home visits to victims, police departments, travel from our office to CPS offices when needed.

A.4. Direct Materials and Supplies

Office Supplies needed for Title IV-E files.

A.5. Direct Equipment

Replacement of existing printers and purchase of scanners

A.6. Direct Other Costs

Books such as the family code, civil procedures and penal codes. Telephone usage and court cost such as citations when the need to be served on family members or out of county witnesses and also pay for sign language interpreters when needed.

B. Training

B.1. Title IV-E Training (75%)

Training that is offered directly relating to Title IV-E.

B.2. Title IV-E Fostering Connections Training (75%)

Training that offers relating to fostering connections.

B.3. Non-Title IV-E Training (50%)

Prosecutors continuing education hours (CLE)

C. Indirect Costs (if applicable)

Cost of publishing citations in an attempt to locate parents in the newspaper and internet.

FFATA Certifications

The Federal Funding Accountability and Transparency Act (FFATA) certifications enumerated below represent material facts upon which DFPS relies when reporting information to the federal government required under federal law. If the Department later determines that the Contractor knowingly rendered an erroneous certification, DFPS may pursue all available remedies in accordance with Texas and U.S. law. Signor further agrees that it will provide immediate written notice to DFPS if at any time Signor learns that any of the certifications provided for below were erroneous when submitted or have since become erroneous by reason of changed circumstances. ***If the Signer cannot certify all of the statements contained in this section, Signer must provide written notice to DFPS detailing which of the below statements it cannot certify and why*.**

Enter your organization's Dun & Bradstreet (D&B) DUNS Number: **103110834**

Enter the parent DUNS Number, if applicable:

Did your organization have gross income, from all sources, of less than $300,000 in your previous tax year?

Yes ☐ **No** ☒ **N/A** ☐ (if entity does not generate income)

If your answer is **Yes**, skip Parts **A**, **B**, **C**, and **D** and complete Part **E**.

If your answer is **No** or **N/A**, complete Parts **A** and **B**.

Part A. Certification Regarding % of Annual Gross from Federal Awards

Did your organization receive 80% or more of its annual gross income from federal awards in the previous tax year?

Yes ☐ **No** ☒

Part B. Certification Regarding Amount of Annual Gross from Federal Awards

Did your organization receive $25 million or more in annual gross income from federal awards in the previous tax year?

Yes ☒ **No** ☐

If your answer is **Yes** to both **A** and **B**, you must complete Part **C**.

If your answer is **No** to either **A** or **B**, skip Part **C** and go to Part **D**.

Part C. Certification Regarding Public Access to Compensation Information

Does the public have access to information about the compensation [17 CFR 229.402(c)(2)] of the senior executives (e.g., officers, managing partners, or any other employees in management positions) in your business or organization (including parent organization, all branches, and all affiliates worldwide) through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

Yes ☐ **No** ☐ **N/A** ☐ (if entity reports through some other means, state how:)

If your answer is **Yes**, skip Part **D** and complete Part **E**.

If your answer is **No**, you must provide compensation information to DFPS for FFATA reporting in Part **D**.

If **N/A**, you may still be required to supply compensation information pending DFPS or federal awarding agency approval. Skip Part **D** until requested by DFPS to supply compensation information and proceed to complete Part **E**.

Part D. Certification Regarding Executive Compansation

The Names and Total Compensation of the top five (5) executives if:

- More than 80% of annual gross revenues from the Federal government,
- Those revenues are greater than $25M annually, and
- Compensation information is not already available through reporting to the SEC.

Contractor Executive Names	Total Compensation

Part E. General FFATA Certification

As the duly authorized representative (Signatory) of the Contractor named below, I hereby certify that the responses that I have provided to the questions in this certification form are true, complete and correct to the best of my knowledge.

Ramon Garcia
Printed Name of Authorized Representative

Signature of Authorized Representative

County Judge
Title of Authorized Representative

Date

Hidalgo County
Legal Name of Contractor
(Subawardee Name)

2341008 & 23941009
Contract Number
(Subaward Number)

Edinburg
Primary City
(Subawardee Principal Place of Performance)

TX
State

78539-6243
9-Character Zip Code
(Zip +4)

This Section For DFPS Use Only

Contract Manager Information

Name _____ **Phone** _____

Department _____ **Region** _____

Email _____

FFATA Certifications

This Section For DFPS Use Only (continued)

Federal Funding Agency:			
CFDA Program #:			
Contract Start Date: *(Subaward Obligation/Action Date)*		**Contract End Date:**	
Total Amount of Contract: *(Amount of Subaward)*			
HCATS Subject: *(Program Source)*			
HCATS Purpose: *(Subaward Project Description)*			

AI-56219 **Constables** **6. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Constable Celestino Avila, Jr., CONSTABLE PCT. #1

Submitted By: Joe Espinoza, CONSTABLE PCT. #1

Department: CONSTABLE PCT. #1

Information

CAPTION

Constable Pct. 1 - Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $70,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constables Pct.1 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $70,000.00

BACKGROUND

Grant No. 3174701
Grant Operation: Date is from 4/1/16 to 8/31/17.

Fiscal Impact

FISCAL YEAR: 2018 **ACCT. #:** 6-1284-421-00-291-047-8-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Revenue Acct# 6-1284-331-12-291-047-8-000 Operation Stonegarden Revenues.
The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 1's general fund account (6-1100-421-00-291-001-0-XXX) No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

Award
Letter
COR
appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/02/2016 04:05 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Joe Espinoza		Started On: 09/02/2016 03:19 PM
Final Approval Date: 09/09/2016		

Statement of Grant Award (SOGA)

The Statement of Grant Award is the official notice of award from the Office of the Governor (OOG). This Grant Agreement and all terms, conditions, provisions and obligations set forth herein shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns and all other State of Texas agencies and any other agencies, departments, divisions, governmental entities, public corporations, and other entities which shall be successors to each of the Parties or which shall succeed to or become obligated to perform or become bound by any of the covenants, agreements or obligations hereunder of each of the Parties hereto.

The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

The Grant Agreement includes the Statement of Grant Award; the OOG Grantee Conditions and Responsibilities; the Grant Application in eGrants; and the other identified documents in the Grant Application and Grant Award, including but not limited to: 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Chapter 783 of the Texas Government Code, Title 34, Part 1, Chapter 20, Subchapter I of the Texas Administrative Code, and the Uniform Grant Management Standards (UGMS) developed by the Comptroller of Public Accounts; the state Funding Announcement or Solicitation under which the grant application was made, and for federal funding, the Funding Announcement or Solicitation under which the OOG was awarded funds; and any applicable documents referenced in the documents listed above. For grants awarded from the U.S. Department of Justice, the current applicable version of the Department of Justice Grants Financial Guide and any applicable provisions in Title 28 of the CFR apply. For grants awarded from the Federal Emergency Management Agency (FEMA), all Information Bulletins and Policies published by the FEMA Grants Program Directorate apply. The OOG reserves the right to add additional responsibilities and requirements, with or without advance notice to the Grantee.

By clicking on the 'Accept' button within the 'Accept Award' tab, the Grantee accepts the responsibility for the grant project, agrees and certifies compliance with the requirements outlined in the Grant Agreement, including all provisions incorporated herein, and agrees with the following conditions of grant funding. The grantee's funds will not be released until the grantee has satisfied the requirements of the following Condition(s) of Funding and Other Fund-Specific Requirement(s), if any, cited below:

Grant Number:	3174701	**Award Amount:**	$70,000.00
Date Awarded:	PREVIEW - AWARD NOT ACTIVE	**Grantee Cash Match:**	$0.00
Grant Period:	04/01/2016 - 08/31/2017	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2017	**Total Project Cost:**	$70,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Hidalgo County		
Project Title:	Hidalgo-2015 OPSG-Constable PCT1		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	8/19/2015
Federal/State Award ID Number:	EMW-2015-SS-00080
Total Federal Award/State Funds Appropriated:	$80,998,000.00
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)

Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Application Errors and Incomplete Information

Item(s) that Need to be Resolved	Tab Name

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Hold Project Funds	Hold Line Item Funds
Costs for vehicle fuel are allowable only for the hours officers are working on grant-paid overtime. Vehicle maintenance costs must be prorated to show the use of vehicles for regular law enforcement duties and the use of vehicles while officers are working grant-paid overtime patrols. Only actual vehicle expenses supported by invoiced gas, oil, and maintenance expenses may be reimbursed under this grant. Please retain all receipts and be prepared to make available upon request.	4/21/2016		☐	☐

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

COUNTY of HIDALGO

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

EDINBURG, TEXAS 78539

September 9, 2016

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo "Eddie" Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioners' court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the receipt of an award from the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD). These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$70,000.00	Grant Number: 3174701 Federal/State Award ID: EMW-2015-SS-00080 Operation Stone Garden Program (OPSG) FY15

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

THE COUNTY OF HIDALGO

HIDALGO COUNTY DISTRICT JUDGES

LUIS M. SINGLETERRY JUDGE, 92ND D.C. | RODOLFO DELGADO JUDGE, 93RD D.C. | J. R. "BOBBY" FLORES JUDGE, 139TH D.C. | ROSE GUERRA REYNA JUDGE, 206TH D.C. | JUAN R. PARTIDA JUDGE, 275TH D.C. | MARIO E. RAMIREZ, JR. JUDGE, 332ND D.C. | NOE GONZALEZ JUDGE, 370TH D.C. OVERSEER | LETICIA LOPEZ JUDGE, 389TH D.C. | AIDA SALINAS FLORES JUDGE, 398TH D.C. | ISRAEL RAMON, JR. JUDGE, 430TH D.C. | JESSE CONTRERAS JUDGE, 449TH D.C.

AI-56219 **Constables** **12. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Constable Celestino Avila, Jr., CONSTABLE PCT. #1

Submitted By: Joe Espinoza, CONSTABLE PCT. #1

Department: CONSTABLE PCT. #1

Information

CAPTION

Constable Pct. 1 - Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $70,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constables Pct.1 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $70,000.00

BACKGROUND

Grant No. 3174701
Grant Operation: Date is from 4/1/16 to 8/31/17.

Fiscal Impact

FISCAL YEAR: 2018 **ACCT. #:** 6-1284-421-00-291-047-8-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Revenue Acct# 6-1284-331-12-291-047-8-000 Operation Stonegarden Revenues.
The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 1's general fund account (6-1100-421-00-291-001-0-XXX) No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

award
Appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/02/2016 04:05 PM
Final Approval		
Form Started By: Joe Espinoza		Started On: 09/02/2016 03:19 PM

Hector Sandoval

From: Joe Espinosa [joe.espinosa@co.hidalgo.tx.us]
Sent: Friday, September 02, 2016 3:43 PM
To: Hector Sandoval
Subject: Certification of Revenues

Hector, I am requesting a certification of revenues for $70,000.00 for operation Stone Garden 2016. Grant Number 3174701

97.067 - Homeland Security Grant Program (HSGP)

Federal Awarding Agency: U.S. Department of Homeland Security, Federal Emergency Management Agency Federal Award Date: 8/19/2015 Federal/State Award ID Number: EMW-2015-SS-00080 Total Federal Award/State Funds Appropriated: $80,998,000.00 Pass Thru Entity Name: Texas Office of the Governor - Homeland Security Grants Division (HSGD) Is the Award R&D: No

--
Chief Deputy Joe F. Espinosa
Hidalgo County Constables Office Pct 1.
Constable Celestino Avila
1900 Joe Stephens Weslaco, Texas 78596
(956) 447-3775 ext. 1106
(956) 246-8152 cell

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

Statement of Grant Award (SOGA)

The Statement of Grant Award is the official notice of award from the Office of the Governor (OOG). This Grant Agreement and all terms, conditions, provisions and obligations set forth herein shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns and all other State of Texas agencies and any other agencies, departments, divisions, governmental entities, public corporations, and other entities which shall be successors to each of the Parties or which shall succeed to or become obligated to perform or become bound by any of the covenants, agreements or obligations hereunder of each of the Parties hereto.

The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

The Grant Agreement includes the Statement of Grant Award; the OOG Grantee Conditions and Responsibilities; the Grant Application in eGrants; and the other identified documents in the Grant Application and Grant Award, including but not limited to: 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Chapter 783 of the Texas Government Code, Title 34, Part 1, Chapter 20, Subchapter I of the Texas Administrative Code, and the Uniform Grant Management Standards (UGMS) developed by the Comptroller of Public Accounts; the state Funding Announcement or Solicitation under which the grant application was made, and for federal funding, the Funding Announcement or Solicitation under which the OOG was awarded funds; and any applicable documents referenced in the documents listed above. For grants awarded from the U.S. Department of Justice, the current applicable version of the Department of Justice Grants Financial Guide and any applicable provisions in Title 28 of the CFR apply. For grants awarded from the Federal Emergency Management Agency (FEMA), all Information Bulletins and Policies published by the FEMA Grants Program Directorate apply. The OOG reserves the right to add additional responsibilities and requirements, with or without advance notice to the Grantee.

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Grant Number:	3174701	**Award Amount:**	$70,000.00
Date Awarded:	PREVIEW - AWARD NOT ACTIVE	**Grantee Cash Match:**	$0.00
Grant Period:	04/01/2016 - 08/31/2017	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2017	**Total Project Cost:**	$70,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Hidalgo County		
Project Title:	Hidalgo-2015 OPSG-Constable PCT1		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	8/19/2015
Federal/State Award ID Number:	EMW-2015-SS-00080
Total Federal Award/State Funds Appropriated:	$80,998,000.00
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)

Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Application Errors and Incomplete Information

Item(s) that Need to be Resolved	Tab Name

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Hold Project Funds	Hold Line Item Funds
Costs for vehicle fuel are allowable only for the hours officers are working on grant-paid overtime. Vehicle maintenance costs must be prorated to show the use of vehicles for regular law enforcement duties and the use of vehicles while officers are working grant-paid overtime patrols. Only actual vehicle expenses supported by invoiced gas, oil, and maintenance expenses may be reimbursed under this grant. Please retain all receipts and be prepared to make available upon request.	4/21/2016			

DATE: September 6, 2016

2016
Appropriation

DEPARTMENT HEAD: Constable Celestino Avila Jr.

DEPARTMENT NAME: Constable Pct. 1 (291)

ACCOUNT NUMBER: 6-1284-421-00-291-047-8-XXX

Contact Person: Joe F. Espinosa Ph# 956-447-3775

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1284-421-00-291-047-8-131	CONST PCT1 OPSG-OVERTIME PAY	29,217.82
6-1284-421-00-291-047-8-220	CONST PCT1 OPSG-FICA	2,235.16
6-1284-421-00-291-047-8-230	CONST PCT1 OPSG-RETIREMENT	3,351.28
6-1284-421-00-291-047-8-250	CONST PCT1 OPSG-UNEMPLOYMENT COMP	175.31
6-1284-421-00-291-047-8-260	CONST PCT1 OPSG-WORKERS COMP	911.60
6-1284-421-00-291-047-8-752	CONST PCT1 OPSG-VEHICLES	34,108.83
6-1284-331-12-291-047-8-000	CONST PCT1 OPSG-REVENUES	70,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**70,000.00**

REASON: To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 1. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) passed through the Office of the Governor's Homeland Security Grants Division (HSGD)
Grant Number: 3174701; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.1 general fund budget (6-1100-421-00-291-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

__/__/__
DATE

ATTEST COUNTY CLERK

DATE: September 6, 2016

2016
Appropriation

DEPARTMENT HEAD: Constable Celestino Avila Jr.

DEPARTMENT NAME: Constable Pct. 1 (291)

ACCOUNT NUMBER: 6-1284-421-00-291-047-8-XXX

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6-1284-421-00-291-047-8-131	CONST PCT1 OPSG-OVERTIME PAY	29,141.71
6-1284-421-00-291-047-8-220	CONST PCT1 OPSG-FICA	2,229.34
6-1284-421-00-291-047-8-230	CONST PCT1 OPSG-RETIREMENT	3,342.55
6-1284-421-00-291-047-8-250	CONST PCT1 OPSG-UNEMPLOYMENT COMP	174.85
6-1284-421-00-291-047-8-260	CONST PCT1 OPSG-WORKERS COMP	909.22
6-1284-421-00-291-047-8-752	CONST PCT1 OPSG-VEHICLES	34,202.33
6-1284-331-12-291-047-8-000	CONST PCT1 OPSG-REVENUES	70,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**70,000.00**

REASON: To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 1. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD)
Grant Number: 3174701; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.1 general fund budget (6-1100-421-00-291-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

AI-56224 **Constables** **6. B.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Martin Cantu, CONSTABLE PCT. #2

Submitted By: Armando Campos, CONSTABLE PCT. #2

Department: CONSTABLE PCT. #2

Information

CAPTION

Constable Pct 2 Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $70,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for the Hidalgo County Constable Pct 2 portion of the FY 2015 Operation Stonegarden Grant funds in the amount of $70,000.00.

BACKGROUND

Grant Number: 3174801
Award ID Number: EMW-2015-SS-00080
Grant Period: 4/1/2016 -8/31/2017

Fiscal Impact

FISCAL YEAR: 2018 **ACCT. #:** 6-1284-421-00-292-047-8-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Revenue Account# 6-1284-331-12-292-047-8-000 Operation Stonegarden Revenues

The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 2's general fund account (6-1100-421-00-292-001-0-XXX) No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

Backup
COR

appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 04:07 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Armando Campos		Started On: 09/06/2016 10:48 AM
Final Approval Date: 09/09/2016		

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy

Aimee Snoddy
Director
Homeland Security Grants Division

***** PREVIEW - Statement of Grant Award (SOGA) - PREVIEW *****

The Statement of Grant Award is the official notice of award from the Office of the Governor (OOG). This Grant Agreement and all terms, conditions, provisions and obligations set forth herein shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns and all other State of Texas agencies and any other agencies, departments, divisions, governmental entities, public corporations, and other entities which shall be successors to each of the Parties or which shall succeed to or become obligated to perform or become bound by any of the covenants, agreements or obligations hereunder of each of the Parties hereto.

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Grant Number:	3174801	**Award Amount:**	$70,000.00
Date Awarded:	PREVIEW - AWARD NOT ACTIVE	**Grantee Cash Match:**	$0.00
Grant Period:	04/01/2016 - 08/31/2017	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2017	**Total Project Cost:**	$70,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Hidalgo County		
Project Title:	Hidalgo-2015 OPSG-Constable PCT2		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	8/19/2015
Federal/State Award ID Number:	EMW-2015-SS-00080
Total Federal Award/State Funds Appropriated:	$80,998,000.00
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)

Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Hold Project Funds	Hold Line Item Funds
Costs for vehicle fuel are allowable only for the hours officers are working on grant-paid overtime. Vehicle maintenance costs must be prorated to show the use of vehicles for regular law enforcement duties and the use of vehicles while officers are working grant-paid overtime patrols. Only actual vehicle expenses supported by invoiced gas, oil, and maintenance expenses may be reimbursed under this grant. Please retain all receipts and be prepared to make available upon request.	4/21/2016		☐	☐

COUNTY of HIDALGO

EDINBURG, TEXAS 78539

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

September 9, 2016

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo "Eddie" Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioners' court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the receipt of an award from the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD). These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$70,000.00	Grant Number: 3174801 Federal/State Award ID: EMW-2015-SS-00080 Operation Stone Garden Program (OPSG) FY15

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

AI-56224 **Constables** 12. B.

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Martin Cantu, CONSTABLE PCT. #2

Submitted By: Armando Campos, CONSTABLE PCT. #2

Department: CONSTABLE PCT. #2

Information

CAPTION

Constable Pct 2 Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $70,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for the Hidalgo County Constable Pct 2 portion of the FY 2015 Operation Stonegarden Grant funds in the amount of $70,000.00.

BACKGROUND

Grant Number: 3174801
Award ID Number: EMW-2015-SS-00080
Grant Period: 4/1/2016 -8/31/2017

Fiscal Impact

FISCAL YEAR: 2018 **ACCT. #:** 6-1284-421-00-292-047-8-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Revenue Account# 6-1284-331-12-292-047-8-000 Operation Stonegarden Revenues

The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 2's general fund account (6-1100-421-00-292-001-0-XXX) No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

Backup
Appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 04:07 PM
Final Approval		
Form Started By: Armando Campos		Started On: 09/06/2016 10:48 AM

Hector Sandoval

From: Chief A. Campos [armando.campos@co.hidalgo.tx.us]
Sent: Friday, September 09, 2016 10:58 AM
To: Hector Sandoval
Subject: Re: 2015 OPSG Appropriation and Agenda Item

Greetings Hector can you please create a certification of revenues for agenda item 56224 in the amount of 70,000.00, this pertains to the operation stone garden 15 grant.

--
Armando Campos CPM
Chief Deputy Constable
for Constable Martin "Marty" Cantu
Pct. 2 Constable's Office
Office (956)784-3510
Fax (956)784-8687
armando.campos@co.hidalgo.tx.us

"Ignorance of Power is the Worst substitute for True Leadership"

Confidentiality Statement

This email transmission and/or its attachments may contain confidential information or privileged and confidential attorney-client information, intended only for the use of the individual or entity named above.

The authorized recipient of this information is prohibited from disclosing it to any other party unless required to do so by law and is required to delete/destroy the information after its stated need has been fulfilled. If you are not the intended recipient, you are hereby notified that any disclosure, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this transmission in error, please notify the sender immediately and delete this information from all files and drives in your possession, custody or control.

We appreciate your efforts to protect the confidential information of Hidalgo County Constable Pct. 2 and its customers.

----- Original Message -----
From: "Hector Sandoval" <Hector.Sandoval@auditor.co.hidalgo.tx.us>
To: "Chief A. Campos " <armando.campos@co.hidalgo.tx.us>
Cc: "Deborah Fischer" <Deborah.Fischer@auditor.co.hidalgo.tx.us>
Sent: Tuesday, September 6, 2016 11:45:55 AM
Subject: 2015 OPSG Appropriation and Agenda Item

Good morning Chief Campos,

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

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If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

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Program Fund:	HS-Homeland Security Grant Program (HSGP)		
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Project Title:	Hidalgo-2015 OPSG-Constable PCT2		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		

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Federal Award Date:	8/19/2015
Federal/State Award ID Number:	EMW-2015-SS-00080
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Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

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DATE: September 6, 2016

2016
Appropriation

DEPARTMENT HEAD: Constable Martin Cantu

DEPARTMENT NAME: Constable Pct. 2 (292)

ACCOUNT NUMBER: 6-1284-421-00-292-047-8-XXX

Contact Person: Armando Campos Ph# 956-784-3510

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code. Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

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6-1284-421-00-292-047-8-220	CONST PCT2 OPSG-FICA	1,833.78
6-1284-421-00-292-047-8-230	CONST PCT2 OPSG-RETIREMENT	2,749.47
6-1284-421-00-292-047-8-250	CONST PCT2 OPSG-UNEMPLOYMENT COMP	143.83
6-1284-421-00-292-047-8-260	CONST PCT2 OPSG-WORKERS COMP	747.90
6-1284-421-00-292-047-8-751	CONST PCT2 OPSG-MACHINERY & EQUIPMENT	3,860.77
6-1284-421-00-292-047-8-752	CONST PCT2 OPSG-VEHICLES	36,693.25
6-1284-331-12-292-047-8-000	CONST PCT2 OPSG-REVENUES	70,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**70,000.00**

REASON: To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 2. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) passed through the Office of the Governor's Homeland Security Grants Division (HSGD)
Grant Number: 3174801; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.2 general fund budget (6-1100-421-00-292-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

DATE: September 6, 2016

2016
Appropriation

DEPARTMENT HEAD: Constable Martin Cantu

DEPARTMENT NAME: Constable Pct. 2 (292)

ACCOUNT NUMBER: 6-1284-421-00-292-047-8-XXX

Contact Person: Armando Campos **Ph#** 956-784-3510

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1284-421-00-292-047-8-131	CONST PCT2 OPSG-OVERTIME PAY	23,908.57
6-1284-421-00-292-047-8-220	CONST PCT2 OPSG-FICA	1,829.01
6-1284-421-00-292-047-8-230	CONST PCT2 OPSG-RETIREMENT	2,742.30
6-1284-421-00-292-047-8-250	CONST PCT2 OPSG-UNEMPLOYMENT COMP	143.45
6-1284-421-00-292-047-8-260	CONST PCT2 OPSG-WORKERS COMP	745.95
6-1284-421-00-292-047-8-751	CONST PCT2 OPSG-MACHINERY & EQUIPMENT	3,937.47
6-1284-421-00-292-047-8-752	CONST PCT2 OPSG-VEHICLES	36,693.25
6-1284-331-12-292-047-8-000	CONST PCT2 OPSG-REVENUES	70,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**70,000.00**

REASON:

To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 2. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD)
Grant Number: 3174801; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.2 general fund budget (6-1100-421-00-292-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

____/____/____
DATE

ATTEST COUNTY CLERK

AI-56218 **Constables** **6. C.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Dan Broyles, CONSTABLE PCT. #3

Submitted By: Raquel Ramos, CONSTABLE PCT. #3

Department: CONSTABLE PCT. #3

Information

CAPTION

Constable Pct. 3 - Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $100,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constable Precinct 3 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $100,000.00.

BACKGROUND

On 5/19/15, Commissioners' Court approved the acceptance of the ratification to apply for the FY 2015 Operation Stonegarden Grant from the Department of Homeland Security, FEMA (AI#49699).
Grant No. 3174901
Federal ID: EMW-2015-SS-00080
Grant Operation: Date is from 4/1/16 to 8/31/17.

Fiscal Impact

FISCAL YEAR: 2018 **ACCT. #:** 6-1284-421-00-293-047-8-XXX

FUNDS AVAILABLE Y/N?: y **MATCHING FUNDS Y/N?:** n

BUDGETARY IMPACT:

Revenue Account# 6-1284-331-12-293-047-8-000 Operation Stonegarden Revenues

The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 3's general fund account (6-1100-421-00-293-001-0-XXX) No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

AWARD LETTER
SOGA
COR
appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/07/2016 08:08 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Raquel Ramos		Started On: 09/02/2016 03:08 PM
Final Approval Date: 09/09/2016		

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy

Aimee Snoddy
Director
Homeland Security Grants Division

Statement of Grant Award (SOGA)

The Statement of Grant Award is the official notice of award from the Office of the Governor (OOG). This Grant Agreement and all terms, conditions, provisions and obligations set forth herein shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns and all other State of Texas agencies and any other agencies, departments, divisions, governmental entities, public corporations, and other entities which shall be successors to each of the Parties or which shall succeed to or become obligated to perform or become bound by any of the covenants, agreements or obligations hereunder of each of the Parties hereto.

The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

The Grant Agreement includes the Statement of Grant Award; the OOG Grantee Conditions and Responsibilities; the Grant Application in eGrants; and the other identified documents in the Grant Application and Grant Award, including but not limited to: 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Chapter 783 of the Texas Government Code, Title 34, Part 1, Chapter 20, Subchapter I of the Texas Administrative Code, and the Uniform Grant Management Standards (UGMS) developed by the Comptroller of Public Accounts; the state Funding Announcement or Solicitation under which the grant application was made, and for federal funding, the Funding Announcement or Solicitation under which the OOG was awarded funds; and any applicable documents referenced in the documents listed above. For grants awarded from the U.S. Department of Justice, the current applicable version of the Department of Justice Grants Financial Guide and any applicable provisions in Title 28 of the CFR apply. For grants awarded from the Federal Emergency Management Agency (FEMA), all Information Bulletins and Policies published by the FEMA Grants Program Directorate apply. The OOG reserves the right to add additional responsibilities and requirements, with or without advance notice to the Grantee.

By clicking on the 'Accept' button within the 'Accept Award' tab, the Grantee accepts the responsibility for the grant project, agrees and certifies compliance with the requirements outlined in the Grant Agreement, including all provisions incorporated herein, and agrees with the following conditions of grant funding. The grantee's funds will not be released until the grantee has satisfied the requirements of the following Condition(s) of Funding and Other Fund-Specific Requirement(s), if any, cited below:

Grant Number:	3174901	**Award Amount:**	$100,000.00
Date Awarded:	PREVIEW - AWARD NOT ACTIVE	**Grantee Cash Match:**	$0.00
Grant Period:	04/01/2016 - 08/31/2017	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2017	**Total Project Cost:**	$100,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Hidalgo County		
Project Title:	Hidalgo-2015 OPSG-Constable PCT3		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		
CFDA:	97.067 - Homeland Security Grant Program (HSGP)		
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency		
Federal Award Date:	8/19/2015		
Federal/State Award ID Number:	EMW-2015-SS-00080		
Total Federal Award/State Funds Appropriated:	$80,998,000.00		
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)		

Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Application Errors and Incomplete Information

Item(s) that Need to be Resolved	Tab Name

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Hold Project Funds	Hold Line Item Funds
Costs for vehicle fuel are allowable only for the hours officers are working on grant-paid overtime. Vehicle maintenance costs must be prorated to show the use of vehicles for regular law enforcement duties and the use of vehicles while officers are working grant-paid overtime patrols. Only actual vehicle expenses supported by invoiced gas, oil, and maintenance expenses may be reimbursed under this grant. Please retain all receipts and be prepared to make available upon request.	4/21/2016		☐	☐

COUNTY of HIDALGO

EDINBURG, TEXAS 78539

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

September 9, 2016

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo "Eddie" Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioners' court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the receipt of an award from the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD). These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$100,000.00	Grant Number: 3174901 Federal/State Award ID: EMW-2015-SS-00080 Operation Stone Garden Program (OPSG) FY15

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

HIDALGO COUNTY DISTRICT JUDGES

LUIS M. SINGLETERRY - JUDGE, 92ND D.C. | RODOLFO DELGADO JUDGE, 93RD D.C. | J. R. "BOBBY" FLORES JUDGE, 139TH D.C. | ROSE GUERRA REYNA JUDGE, 206TH D.C. | JUAN R. PARTIDA JUDGE, 275TH D.C. | MARIO E. RAMIREZ, JR. JUDGE, 332ND D.C. | NOE GONZALEZ JUDGE, 370TH D.C. OVERSEER | LETICIA LOPEZ JUDGE, 398TH D.C. | AIDA SALINAS FLORES JUDGE, 398TH D.C. | ISRAEL RAMON, JR. JUDGE, 430TH D.C. | JESSE CONTRERAS JUDGE, 449TH D.C.

AI-56218 **Constables** **12. C.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Dan Broyles, CONSTABLE PCT. #3

Submitted By: Raquel Ramos, CONSTABLE PCT. #3

Department: CONSTABLE PCT. #3

Information

CAPTION

Constable Pct. 3 - Operation Stonegarden (1284):
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY2015 for the amount of $100,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constable Precinct 3 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $100,000.00.

BACKGROUND

On 5/19/15, Commissioners' Court approved the acceptance of the ratification to apply for the FY 2015 Operation Stonegarden Grant from the Department of Homeland Security, FEMA (AI#49699).
Grant No. 3174901
Federal ID: EMW-2015-SS-00080
Grant Operation: Date is from 4/1/16 to 8/31/17.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1284-421-00-293-047-7-xxx

FUNDS AVAILABLE Y/N?: y **MATCHING FUNDS Y/N?:** n

BUDGETARY IMPACT:

Revenue Account# 6-1284-331-12-293-047-8-000 Operation Stonegarden Revenues

The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 3's general fund account (6-1100-421-00-293-001-0-XXX) No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

AWARD LETTER

SOGA

appro

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/07/2016 08:08 AM
Final Approval		
Form Started By: Raquel Ramos		Started On: 09/02/2016 03:08 PM

Hector Sandoval

From: Raquel Ramos [raquel.ramos@co.hidalgo.tx.us]
Sent: Friday, September 09, 2016 1:04 PM
To: Hector Sandoval
Subject: COR - Stonegarden,

Good afternoon Hector,

I am respectfully requesting a Certification of Revenues for the upcoming receipt of Operation Stonegarden Funds in the amount of $100,000.00. The item will be presented to Commissioner's Court under Agenda Item No: 56213 on Tuesday September 13, 2016. I do apologize for the delay in the request. If there is anything else needed on my part, please feel free to contact me. Have a great day.

Raquel V. Ramos
Administrative Assistant V
Hidalgo County Constable Pct. 3 Dept.
Ph: 956-581-6800
Fax: 956-519-4245
raquel.ramos@co.hidalgo.tx.us

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

Statement of Grant Award (SOGA)

The Statement of Grant Award is the official notice of award from the Office of the Governor (OOG). This Grant Agreement and all terms, conditions, provisions and obligations set forth herein shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns and all other State of Texas agencies and any other agencies, departments, divisions, governmental entities, public corporations, and other entities which shall be successors to each of the Parties or which shall succeed to or become obligated to perform or become bound by any of the covenants, agreements or obligations hereunder of each of the Parties hereto.

The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

The Grant Agreement includes the Statement of Grant Award; the OOG Grantee Conditions and Responsibilities; the Grant Application in eGrants; and the other identified documents in the Grant Application and Grant Award, including but not limited to: 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Chapter 783 of the Texas Government Code, Title 34, Part 1, Chapter 20, Subchapter I of the Texas Administrative Code, and the Uniform Grant Management Standards (UGMS) developed by the Comptroller of Public Accounts; the state Funding Announcement or Solicitation under which the grant application was made, and for federal funding, the Funding Announcement or Solicitation under which the OOG was awarded funds; and any applicable documents referenced in the documents listed above. For grants awarded from the U.S. Department of Justice, the current applicable version of the Department of Justice Grants Financial Guide and any applicable provisions in Title 28 of the CFR apply. For grants awarded from the Federal Emergency Management Agency (FEMA), all Information Bulletins and Policies published by the FEMA Grants Program Directorate apply. The OOG reserves the right to add additional responsibilities and requirements, with or without advance notice to the Grantee.

By clicking on the 'Accept' button within the 'Accept Award' tab, the Grantee accepts the responsibility for the grant project, agrees and certifies compliance with the requirements outlined in the Grant Agreement, including all provisions incorporated herein, and agrees with the following conditions of grant funding. The grantee's funds will not be released until the grantee has satisfied the requirements of the following Condition(s) of Funding and Other Fund-Specific Requirement(s), if any, cited below:

Grant Number:	3174901	**Award Amount:**	$100,000.00
Date Awarded:	PREVIEW - AWARD NOT ACTIVE	**Grantee Cash Match:**	$0.00
Grant Period:	04/01/2016 - 08/31/2017	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2017	**Total Project Cost:**	$100,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Hidalgo County		
Project Title:	Hidalgo-2015 OPSG-Constable PCT3		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	8/19/2015
Federal/State Award ID Number:	EMW-2015-SS-00080
Total Federal Award/State Funds Appropriated:	$80,998,000.00
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)

Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Application Errors and Incomplete Information

Item(s) that Need to be Resolved	Tab Name

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Hold Project Funds	Hold Line Item Funds
Costs for vehicle fuel are allowable only for the hours officers are working on grant-paid overtime. Vehicle maintenance costs must be prorated to show the use of vehicles for regular law enforcement duties and the use of vehicles while officers are working grant-paid overtime patrols. Only actual vehicle expenses supported by invoiced gas, oil, and maintenance expenses may be reimbursed under this grant. Please retain all receipts and be prepared to make available upon request.	4/21/2016			

DATE: September 6, 2016

2016
Appropriation

DEPARTMENT HEAD: Lazaro Gallardo Jr.

DEPARTMENT NAME: Constable Precinct 3

ACCOUNT NUMBER: 6-1284-421-00-293-047-8-XXX

Contact Person: Raquel Ramos Ph# 956-205-7031

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1284-421-00-293-047-8-131	CONST PCT3 OPSG-OVERTIME PAY	42,227.67
6-1284-421-00-293-047-8-220	CONST PCT3 OPSG-FICA	3,230.42
6-1284-421-00-293-047-8-230	CONST PCT3 OPSG-RETIREMENT	4,750.61
6-1284-421-00-293-047-8-250	CONST PCT3 OPSG-UNEMPLOYMENT COMP	211.14
6-1284-421-00-293-047-8-260	CONST PCT3 OPSG-WORKERS COMP	1,317.50
6-1284-421-00-293-047-8-581	CONST PCT3 OPSG-TRAVEL IN COUNTY	3,696.90
6-1284-421-00-293-047-8-752	CONST PCT3 OPSG-VEHICLES	44,565.76
6-1284-331-12-293-047-8-000	CONST PCT3 OPSG-REVENUES	100,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**100,000.00**

REASON: To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 3. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) passed through the Office of the Governor's Homeland Security Grants Division (HSGD)
Grant Number: 3174901; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.3 general fund budget (6-1100-421-00-293-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

DATE: September 6, 2016

2016
Appropriation

DEPARTMENT HEAD: Lazaro Gallardo Jr.

DEPARTMENT NAME: Constable Precinct 3

ACCOUNT NUMBER: 6-1284-421-00-293-047-8-XXX

Contact Person: Raquel Ramos **Ph#:** 956-205-7031

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1284-421-00-293-047-8-131	CONST PCT3 OPSG-OVERTIME PAY	42,117.66
6-1284-421-00-293-047-8-220	CONST PCT3 OPSG-FICA	3,222.00
6-1284-421-00-293-047-8-230	CONST PCT3 OPSG-RETIREMENT	4,830.90
6-1284-421-00-293-047-8-250	CONST PCT3 OPSG-UNEMPLOYMENT COMP	252.71
6-1284-421-00-293-047-8-260	CONST PCT3 OPSG-WORKERS COMP	1,314.07
6-1284-421-00-293-047-8-581	CONST PCT3 OPSG-TRAVEL IN COUNTY	3,696.90
6-1284-421-00-293-047-8-752	CONST PCT3 OPSG-VEHICLES	44,565.76
6-1284-331-12-293-047-8-000	CONST PCT3 OPSG-REVENUES	100,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**100,000.00**

REASON:

To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 3. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD)
Grant Number: 3174901; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.3 general fund budget (6-1100-421-00-293-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

AI-56328 **Constables** **6. D.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Horaldo Sanchez, CONSTABLE PCT. #4

Submitted By: Nayla Munoz, CONSTABLE PCT. #4

Department: CONSTABLE PCT. #4

Information

CAPTION

Constable Pct. #4:
1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY 2015 for the amount of $75,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY 2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constable Pct.4 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $75,000.00.

BACKGROUND

On 5/19/15, Commissioners' Court approved the acceptance of the ratification to apply for the FY 2015 Operation Stonegarden Grant from the Department of Homeland Security, FEMA (AI#49699). Grant No. 3175001 Federal ID: EMW-2015-SS-00080 Grant Operation: Date is from 4/1/16 to 8/31/17.

Fiscal Impact

FISCAL YEAR: 2018 **ACCT. #:** 6-1284-421-00-294-047-8-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

IMPACT:Revenue Account# 6-1284-331-12-294-047-8-000 Operation Stonegarden Revenues

The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 4's general fund account (6-1100-421-00-294-001-0-XXX) No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

Award Letter
SOGA
COR
appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 04:43 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Nayla Munoz		Started On: 09/09/2016 04:13 PM
Final Approval Date: 09/09/2016		

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

Be sure to review the Subrecipient Responsibilities Memo for a quick overview of general items every grantee should be aware of. You can also find more detailed information on the eGrants website including helpful resources, links, and tools needed to properly administer HSGD grants. The Guide to Grants, also on the website, contains answers to questions frequently asked by grantees.

If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

4:32 PM

Agency Name: Hidalgo County
Project Title: Hidalgo-2015 OPSG-Constable PCT4
Current Grant Manager: Jerry Ding

Grant/App: 3175001
Status: Pending AO Acceptance of Award
Current Program Manager: Arturo Mendez

Start Date: 4/1/2016
End Date: 8/31/2017
Liquidation Date:
CFDA: 97.067
Fund Source: HS-Homeland Security Grant Program (HSGP)

General Information and Instructions

View Introduction

View Certification and Assurances

View Instructions

Grant Award Documents

Congratulatory Letter and Instructions

Grantee Responsibilities Memo

Print Statement of Grant Award

Statement of Grant Award (SOGA)

The Statement of Grant Award is the official notice of award from the Office of the Governor (OOG). This Grant Agreement and all terms, conditions, provisions and obligations set forth herein shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns and all other State of Texas agencies and any other agencies, departments, divisions, governmental entities, public corporations, and other entities which shall be successors to each of the Parties or which shall succeed to or become obligated to perform or become bound by any of the covenants, agreements or obligations hereunder of each of the Parties hereto.

The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

The Grant Agreement includes the Statement of Grant Award; the OOG Grantee Conditions and Responsibilities; the Grant Application in eGrants; and the other identified documents in the Grant Application and Grant Award, including but not limited to: 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Chapter 783 of the Texas Government Code, Title 34, Part 1, Chapter 20, Subchapter I of the Texas Administrative Code, and the Uniform Grant Management Standards (UGMS) developed by the Comptroller of Public Accounts; the state Funding Announcement or Solicitation under which the grant application was made, and for federal funding, the Funding Announcement or Solicitation under which the OOG was awarded funds; and any applicable documents referenced in the documents listed above. For grants awarded from the U.S. Department of Justice, the current applicable version of the Department of Justice Grants Financial Guide and any applicable provisions in Title 28 of the CFR apply. For grants awarded from the Federal Emergency Management Agency (FEMA), all Information Bulletins and Policies published by the FEMA Grants Program Directorate apply. The OOG reserves the right to add additional responsibilities and requirements, with or without advance notice to the Grantee.

By clicking on the 'Accept' button within the 'Accept Award' tab, the Grantee accepts the responsibility for the grant project, agrees and certifies compliance with the requirements outlined in the Grant Agreement, including all provisions incorporated herein, and agrees with the following conditions of grant funding. The grantee's funds will not be released until the grantee has satisfied the requirements of the following Condition(s) of Funding and Other Fund-Specific Requirement(s), if any, cited below:

Grant Number:	3175001	**Award Amount:**	$75,000.00
Date Awarded:	PREVIEW - AWARD NOT ACTIVE	**Grantee Cash Match:**	$0.00
Grant Period:	04/01/2016 - 08/31/2017	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2017	**Total Project Cost:**	$75,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Hidalgo County		
Project Title:	Hidalgo-2015 OPSG-Constable PCT4		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	8/19/2015
Federal/State Award ID Number:	EMW-2015-SS-00080
Total Federal Award/State Funds Appropriated:	$80,998,000.00
Pass Thru Entity Name:	Texas Office of the Governor – Homeland Security Grants Division (HSGD)
Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Application Errors and Incomplete Information

Item(s) that Need to be Resolved	Tab Name

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Hold Project Funds	Hold Line Item Funds
Costs for vehicle fuel are allowable only for the hours officers are working on grant-paid overtime. Vehicle maintenance costs must be prorated to show the use of vehicles for regular law enforcement duties and the use of vehicles while officers are working grant-paid overtime patrols. Only actual vehicle expenses supported by invoiced gas, oil, and maintenance expenses may be reimbursed under this grant. Please retain all receipts and be prepared to make available upon request.	4/21/2016		☐	☐

Accept | Decline

COUNTY of HIDALGO

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

EDINBURG, TEXAS 78539

September 9, 2016

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo "Eddie" Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioners' court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the receipt of an award from the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD). These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$75,000.00	Grant Number: 3175001 Federal/State Award ID: EMW-2015-SS-00080 Operation Stone Garden Program (OPSG) FY15

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

HIDALGO COUNTY DISTRICT JUDGES

LUIS M. SINGLETERRY, JUDGE, 92ND D.C. | RODOLFO DELGADO, JUDGE, 93RD D.C. | J. R. "BOBBY" FLORES, JUDGE, 138TH D.C. | ROSE GUERRA REYNA, JUDGE, 206TH D.C. | JUAN R. PARTIDA, JUDGE, 275TH D.C. | MARIO E. RAMIREZ, JR., JUDGE, 332ND D.C. | NOE GONZALEZ, JUDGE, 370TH D.C. OVERSEER | LETICIA LOPEZ, JUDGE, 389TH D.C. | AIDA SALINAS FLORES, JUDGE, 398TH D.C. | ISRAEL RAMON, JR., JUDGE, 430TH D.C. | JESSE CONTRERAS, JUDGE, 449TH D.C.

AI-56328 **Constables 6. D.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Horaldo Sanchez, CONSTABLE PCT. #4

Submitted By: Nayla Munoz, CONSTABLE PCT. #4

Department: CONSTABLE PCT. #4

Information

CAPTION

Constable Pct. #4:

1. Authorization to accept the Approval Notice in reference to Operation Stonegarden FY 2015 for the amount of $75,000.00.
2. Authorization and approval for County Judge, as authorized official, to Electronically accept grant award form and related documents.
3. Authorization to pay Overtime reimbursable under the grant terms and conditions.
4. Approval of Certification of Revenues as certified by the County Auditor for the FY 2015 Operation Stonegarden Grant.
5. Approval to appropriate the budget for Hidalgo County Constable Pct.4 Office portion of the FY 2015 Operation Stonegarden Grant in the amount of $75,000.00.

BACKGROUND

On 5/19/15, Commissioners' Court approved the acceptance of the ratification to apply for the FY 2015 Operation Stonegarden Grant from the Department of Homeland Security, FEMA (AI#49699). Grant No. 3175001 Federal ID: EMW-2015-SS-00080 Grant Operation: Date is from 4/1/16 to 8/31/17.

Fiscal Impact

FISCAL YEAR: 2018 **ACCT. #:** 6-1284-421-00-294-047-8-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

IMPACT:Revenue Account# 6-1284-331-12-294-047-8-000 Operation Stonegarden Revenues

The 2015 OPSG grant will only cover Overtime, FICA, Retirement, Unemployment Compensation, and Workers Comp fringe benefits. All other fringe benefits will be charged to the Constable Pct. 4's general fund account (6-1100-421-00-294-001-0-XXX)
No local match is required. Approval to accept Operation Stonegarden 2015 grant.

Attachments

Award Letter

SOGA

Appropriation

Form Review

Inbox	Reviewed By	Date

Budget & Management	Veronica Ortiz	09/09/2016 04:43 PM
Final Approval		
Form Started By: Nayla Munoz		Started On: 09/09/2016 04:13 PM

Hector Sandoval

From: Horaldo Sanchez [horaldo.sanchez@co.hidalgo.tx.us]
Sent: Friday, September 09, 2016 4:58 PM
To: Hector Sandoval
Subject: OPSG Grant 2015

Good afternoon Hector Sandoval,
I am requesting the Certification of Revenues for the OPSG FY 2015 Grand Award No. 3175001

Agenda Item #56328 is currently scheduled Tuesday, September 13, 2016.

Thank you,

--
Horaldo Sanchez
Chief Deputy
Hidalgo County Constable Precinct 4
2814 Business Highway 281
Edinburg, Texas 78539
Office (956)383-8560
Fax (956)383-8565

GOVERNOR GREG ABBOTT

Dear Grantee:

Congratulations on your award! To activate your agency's grant, the Authorized Official must log on to eGrants at https://eGrants.gov.texas.gov and go to the 'My Home' tab. In the 'Pending Applications' section, locate the application with a 'Current Status' of "Pending AO Acceptance of Award". Click on the grant number and proceed to the 'Accept Award' tab. From this tab, click on the 'Accept' button. Grants must be accepted within 45 calendar days of the date the award was issued.

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If you have any questions regarding this award, feel free to contact your grant manager, whose name is referenced in the Statement of Grant Award or you may always contact our office via the eGrants Help Desk at eGrants@gov.texas.gov.

We look forward to working with you to ensure the success of your program.

Aimee Snoddy
Director
Homeland Security Grants Division

General Information and Instructions

View Introduction

View Certification and Assurances

View Instructions

Grant Award Documents

View Statement of Grant Award

View Special Conditions

Print Statement of Grant Award

Statement of Grant Award (SOGA)

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The approved project narrative and budget for this award are reflected in eGrants on the 'Narrative' and 'Budget/Details' tabs. By accepting the Grant Award in eGrants, the Grantee agrees to strictly comply with the requirements and obligations of this Grant Agreement including any and all applicable federal and state statutes, regulations, policies, guidelines and requirements. In instances where conflicting requirements apply to a Grantee, the more restrictive requirement applies.

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Grant Number:	3175001	**Award Amount:**	$75,000.00
Date Awarded:	PREVIEW - AWARD NOT ACTIVE	**Grantee Cash Match:**	$0.00
Grant Period:	04/01/2016 - 08/31/2017	**Grantee In Kind Match:**	$0.00
Liquidation Date:	11/29/2017	**Total Project Cost:**	$75,000.00
Program Fund:	HS-Homeland Security Grant Program (HSGP)		
Grantee Name:	Hidalgo County		
Project Title:	Hidalgo-2015 OPSG-Constable PCT4		
Grant Manager:	Jerry Ding		
DUNS Number:	103110834		

CFDA:	97.067 - Homeland Security Grant Program (HSGP)
Federal Awarding Agency:	U.S. Department of Homeland Security, Federal Emergency Management Agency
Federal Award Date:	8/19/2015
Federal/State Award ID Number:	EMW-2015-SS-00080
Total Federal Award/State Funds Appropriated:	$80,998,000.00
Pass Thru Entity Name:	Texas Office of the Governor - Homeland Security Grants Division (HSGD)
Is the Award R&D:	No
Federal/State Award Description:	The purpose of the HSGP is to support state and local efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP provides funding to implement investments that build, sustain, and deliver the 31 core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community.

List of Application Errors and Incomplete Information

Item(s) that Need to be Resolved	Tab Name

List of Post-Award Conditions of Funding and Other Fund-Specific Requirements

Condition of Funding / Project Requirement	Date Created	Date Met	Held Project Funds	Hold Line Item Funds
Costs for vehicle fuel are allowable only for the hours officers are working on grant-paid overtime. Vehicle maintenance costs must be prorated to show the use of vehicles for regular law enforcement duties and the use of vehicles while officers are working grant-paid overtime patrols. Only actual vehicle expenses supported by invoiced gas, oil, and maintenance expenses may be reimbursed under this grant. Please retain all receipts and be prepared to make available upon request.	4/21/2016			

Accept | Decline

DATE: September 9, 2016

DEPARTMENT HEAD: Constable Atanacio "J.R." Gaitan

2016
Appropriation

DEPARTMENT NAME: Constable Pct. 4 (294)

ACCOUNT NUMBER: 6-1284-421-00-294-047-8-XXX

Contact Person: Horaldo Sanchez Ph# 956-383-8560

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1284-421-00-294-047-8-131	CONST PCT4 OPSG-OVERTIME PAY	35,053.08
6-1284-421-00-294-047-8-220	CONST PCT4 OPSG-FICA	2,681.56
6-1284-421-00-294-047-8-230	CONST PCT4 OPSG-RETIREMENT	3,943.47
6-1284-421-00-294-047-8-250	CONST PCT4 OPSG-UNEMPLOYMENT COMP	175.27
6-1284-421-00-294-047-8-260	CONST PCT4 OPSG-WORKERS COMP	1,093.66
6-1284-421-00-294-047-8-751	CONST PCT4 OPSG-MACHINERY & EQUIPMENT	32,052.96
6-1284-331-12-294-047-8-000	CONST PCT4 OPSG-REVENUES	75,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**75,000.00**

REASON: To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 4. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) passed through the Office of the Governor's Homeland Security Grants Division (HSGD)
Grant Number: 3175001; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.4 general fund budget (6-1100-421-00-294-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

DATE: September 6, 2016

2016
Appropriation

DEPARTMENT HEAD: Constable Atanacio "J.R." Gaitan

DEPARTMENT NAME: Constable Pct. 4 (294)

ACCOUNT NUMBER: 6-1284-421-00-294-047-8-XXX

Contact Person: Horaldo Sanchez **Ph#** 956-383-8560

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1284-421-00-294-047-8-131	CONST PCT4 OPSG-OVERTIME PAY	34,961.77
6-1284-421-00-294-047-8-220	CONST PCT4 OPSG-FICA	2,674.58
6-1284-421-00-294-047-8-230	CONST PCT4 OPSG-RETIREMENT	4,010.11
6-1284-421-00-294-047-8-250	CONST PCT4 OPSG-UNEMPLOYMENT COMP	209.77
6-1284-421-00-294-047-8-260	CONST PCT4 OPSG-WORKERS COMP	1,090.81
6-1284-421-00-294-047-8-751	CONST PCT4 OPSG-MACHINERY & EQUIPMENT	32,052.96
6-1284-331-12-294-047-8-000	CONST PCT4 OPSG-REVENUES	75,000.00
	TOTAL BUDGET INCREASE (DECREASE)	**75,000.00**

REASON:

To appropriate the budget for the FY 2015 Operation Stonegarden Grant for Constable Pct 4. The grant was awarded by the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) pass through the Texas Office of the Governor - Homeland Security Grants Division (HSGD)
Grant Number: 3175001; Federal/State Award ID: EMW-2015-SS-00080; Grant period is from 04/01/16 to 08/31/17

Note: Expenses relating to health and life insurance that are assigned to the overtime hours are to be charged to the Constable Pct.4 general fund budget (6-1100-421-00-294-001-0-XXX)

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

AI-56303 **Constables** **6. E.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Horaldo Sanchez, CONSTABLE PCT. #4

Submitted By: Nayla Munoz, CONSTABLE PCT. #4

Department: CONSTABLE PCT. #4

Information

CAPTION

Constable Precinct 4:
Discussion, consideration, and approval to appoint Romeo Rodriguez, Jr.and Alejandro Anzaldua, Jr. as Reserve Deputy Constables by Constable A. "J.R." Gaitan, Constable Precinct 4 in accordance with Texas Local Government Code Section 86.012.

BACKGROUND

Sec. 86.012. RESERVE DEPUTY CONSTABLES. (a) The commissioners court of a county may authorize a constable of the county to appoint reserve deputy constables. The commissioners court may limit the number of reserve deputy constables that a constable may appoint.

Fiscal Impact

FISCAL YEAR: **ACCT. #:**

FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

Reserve Deputies are not part of County Payroll. No funds required for this request.

Attachments

LocalCode

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 02:15 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Nayla Munoz		Started On: 09/09/2016 09:40 AM

Final Approval Date: 09/09/2016

LOCAL GOVERNMENT CODE

CHAPTER 86. CONSTABLE

SUBCHAPTER A. GENERAL PROVISIONS

§ 86.001. ELIGIBILITY TO SERVE AFTER BOUNDARY CHANGE. A person who has served as the constable of a precinct for 10 or more consecutive years before a change is made in the boundaries of the precinct is not ineligible for reelection in the precinct because of residence outside the precinct if the constable's residence is within the boundaries of the precinct as they existed before the change.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987.

§ 86.002. OATH; BOND. (a) Before entering on the duties of office, a person who is elected to the office of constable must execute a bond with two or more good and sufficient sureties or with
a solvent surety company authorized to do business in this state. The bond must be payable to the governor and the governor's successors in office and conditioned that the constable will faithfully perform the duties imposed by law. The bond must be approved by the commissioners court of the county. The commissioners court shall set the bond in an amount of not less than
$500 or more than $1,500.

(b) A person who is elected constable must also take and sign the constitutional oath of office. The oath shall be endorsed

on the bond, together with the certificate of the officer who administers the oath. The bond and oath must be deposited and recorded in the office of the clerk of the county court.

(c) The bond is not void on the first recovery but may be sued on from time to time in the name of an injured party until the whole amount of the bond is recovered.

(d) A person who is elected or appointed to the office of constable and who has given the necessary bond and taken the oath of
office may immediately perform the duties of the office. The acts of the constable are as valid in law as if the constable were commissioned.

(e) Repealed by Acts 1995, 74th Leg., ch. 683, § 1, eff. Aug. 28, 1995.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987. Amended by Acts 1995, 74th Leg., ch. 683, § 1, eff. Aug. 28, 1995; Acts 2005, 79th Leg., ch. 1094, § 18, eff. Sept. 1, 2005.

§ 86.0021. QUALIFICATIONS; REMOVAL. (a) A person is not eligible to serve as constable unless:

(1) the person is eligible to be licensed under Sections 1701.309 and 1701.312, Occupations Code, and:

(A) has at least an associate's degree conferred
by an institution of higher education accredited by an accrediting organization recognized by the Texas Higher Education Coordinating Board;

(B) is a special investigator under Article 2.122(a), Code of Criminal Procedure; or

(C) is an honorably retired peace officer or honorably retired federal criminal investigator who holds a certificate of proficiency issued under Section 1701.357, Occupations Code; or

(2) the person is an active or inactive licensed peace officer under Chapter 1701, Occupations Code.

(b) On or before the 270th day after the date a constable takes office, the constable shall provide, to the commissioners court of the county in which the constable serves, evidence that the constable has been issued a permanent peace officer license under Chapter 1701, Occupations Code. A constable who fails to provide evidence of licensure under this subsection or who fails to maintain a permanent license while serving in office forfeits the office and is subject to removal in a quo warranto proceeding under Chapter 66, Civil Practice and Remedies Code.

(c) The license requirement of Subsection (b) supersedes the license requirement of Section 1701.302, Occupations Code.

Added by Acts 1997, 75th Leg., ch. 884, § 3, eff. Jan. 1, 1998. Amended by Acts 1999, 76th Leg., ch. 877, § 1, eff. Aug. 30, 1999; Acts 2001, 77th Leg., ch. 1420, § 14.821, eff. Sept. 1, 2001; Acts 2005, 79th Leg., ch. 954, § 1, eff. June 18, 2005.

§ 86.003. NEW BOND; REMOVAL. (a) If any of the sureties of a constable dies, permanently moves from this state, becomes insolvent, or is released from liability as provided by law or if the commissioners court determines that the bond of the constable is insufficient, the court shall issue a citation that requires the constable to appear at a time set in the citation, after the 10th day but on or before the 30th day after the date the citation is issued, in order to execute a new bond with good and sufficient surety.

(b) If the constable neglects or refuses to appear to execute the bond at the designated time, the constable shall cease to perform the duties of the office and shall be removed from office

by the judge of the district court in the manner provided by law for
the removal of county officers.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987.

SUBCHAPTER B. DEPUTIES

§ 86.011. APPOINTMENT OF DEPUTY CONSTABLE. (a) An elected constable who desires to appoint a deputy must apply in writing to the commissioners court of the county and show that it is necessary to appoint a deputy in order to properly handle the business of the constable's office that originates in the constable's precinct. The application must state the name of the proposed deputy. The commissioners court shall approve and confirm the appointment of the deputy only if the commissioners court determines that the constable needs a deputy to handle the business originating in the precinct.

(b) Each deputy constable must qualify in the manner provided for deputy sheriffs.

(c) The constable is responsible for the official acts of each deputy of the constable. The constable may require a deputy to post a bond or security. A constable may exercise any remedy against a deputy or the deputy's surety that a person may exercise against the constable or the constable's surety.

(d) A person commits an offense if the person:

(1) serves as a deputy constable and the person has not been appointed as provided by Subsection (a); or

(2) is a constable and issues a deputyship without the

consent and approval of the commissioners court.

(e) An offense under Subsection (d) is punishable by a fine of not less than $50 or more than $1,000.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987.

§ 86.012. RESERVE DEPUTY CONSTABLES. (a) The commissioners court of a county may authorize a constable of the county to appoint reserve deputy constables. The commissioners court may limit the number of reserve deputy constables that a constable may appoint.

(b) A reserve deputy constable serves at the discretion of the constable and may be called into service at any time that the constable considers it necessary to have additional officers to preserve the peace and enforce the law. The constable may authorize a reserve deputy constable who is a peace officer as described by Article 2.12, Code of Criminal Procedure, to carry a weapon or act as a peace officer at all times, regardless of whether the reserve deputy constable is engaged in the actual discharge of official duties, or may limit the authority of the reserve deputy constable to carry a weapon or act as a peace officer to only those times during which the reserve deputy constable is engaged in the actual discharge of official duties. A reserve deputy constable who is not a peace officer as described by Article 2.12, Code of Criminal Procedure, may act as a peace officer only during the actual discharge of official duties. A reserve deputy constable, regardless of whether the reserve deputy constable is a peace officer as described by Article 2.12, Code of Criminal Procedure, is not:

(1) eligible for participation in any program provided by the county that is normally considered a financial benefit of

full-time employment or for any pension fund created by statute for the benefit of full-time paid peace officers; or

(2) exempt from Chapter 1702, Occupations Code.

(c) A reserve deputy constable must take the official oath and must execute a bond in the amount of $2,000, payable to the constable. The oath and bond must be filed with the county clerk of the county in which the appointment is made. The oath and bond must be given before the reserve deputy constable's entry on duty and simultaneously with the officer's appointment.

(d) While actively engaged in an assigned duty at the call of the constable, a reserve deputy constable is vested with the same rights, privileges, and duties of any other peace officer in this state.

(e) The county and the constable do not incur any liability by reason of the appointment of a reserve deputy constable if the reserve deputy constable incurs a personal injury while serving in that capacity.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987. Amended by Acts 1999, 76th Leg., ch. 90, § 3, eff. Sept. 1, 1999; Acts 2001, 77th Leg., ch. 1420, § 14.822, eff. Sept. 1, 2001.

SUBCHAPTER C. POWERS AND DUTIES

§ 86.021. GENERAL POWERS AND DUTIES. (a) A constable shall execute and return as provided by law each process, warrant, and precept that is directed to the constable and is delivered by a lawful officer. Notices required by Section 24.005, Property Code, relating to eviction actions are process for purposes of this section that may be executed by a constable.

(b) A constable may execute any civil or criminal process throughout the county in which the constable's precinct is located and in other locations as provided by the Code of Criminal Procedure or by any other law.

(c) A constable expressly authorized by statute to perform an act or service, including the service of civil or criminal process, citation, notice, warrant, subpoena, or writ, may perform the act or service anywhere in the county in which the constable's precinct is located.

(d) Regardless of the Texas Rules of Civil Procedure, all civil process may be served by a constable in the constable's county or in a county contiguous to the constable's county, except that a constable who is a party to or interested in the outcome of a suit may not serve any process related to the suit.

(e) The constable shall attend each justice court held in the precinct.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987. Amended by Acts 1989, 71st Leg., ch. 1, § 13(a), eff. Aug. 28, 1989; Acts 1997, 75th Leg., ch. 884, § 1, eff. Jan. 1, 1998.

§ 86.022. POWER TO SUMMON RESIDENT ASSISTANCE. (a) If a constable encounters resistance in the execution of any lawful process or in the arrest of an offender, the constable may call for assistance any resident of the county who is convenient.

(b) A person who fails or refuses to obey a call for assistance may, on the motion of the constable, be fined by a justice of the peace in the manner provided for contempt. The amount of the fine may not exceed $10. The person who is accused of not providing assistance must be given three days' notice of the motion.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987.

§ 86.023. COLLECTION LIABILITY. If, for collection, a constable receives a bond, bill, note, or account from any person and the constable gives a receipt in an official capacity for the instrument or account, the constable and the constable's sureties are liable under the constable's bond for the amount collected if the constable fails to pay the amount on demand to the person for whom the constable made the collection.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987.

§ 86.024. FAILURE TO EXECUTE PROCESS. (a) If a constable fails or refuses to execute and return according to law a process, warrant, or precept that is lawfully directed and delivered to the constable, the constable shall be fined for contempt before the court that issued the process, warrant, or precept on the motion of the person injured by the failure or refusal.

(b) The fine shall be set at not less than $10 or more than $100, with costs. The fine shall be for the benefit of the injured person. The constable must be given 10 days' notice of the motion.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987.

§ 86.025. UNFINISHED BUSINESS. If a constable vacates the office for any reason, all unfinished business shall be transferred to the succeeding constable and completed in the same manner as if the successor had begun the business.

Acts 1987, 70th Leg., ch. 149, § 1, eff. Sept. 1, 1987.

AI-56323 **Constables** **6. F.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted By: Debbie Tamez, BUDGET & MANAGEMENT

Department: CONSTABLE PCT. #4

Information

CAPTION

Constable Pct. #4 - TTBH (1285):
Discussion, consideration, and approval to enter into an Interlocal Agreement between Hidalgo County Constable Precinct 4 and Tropical Texas Behavioral Health.

BACKGROUND

Agreement Term from October 1, 2016 - September 30, 2017.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1285-421-00-294-XXX-X-XXX

FUNDS AVAILABLE Y/N?: N/A **MATCHING FUNDS Y/N?:** N/A

BUDGETARY IMPACT:

No Budgetary Impact at this time.
Approval of Interlocal Agreement.

Attachments

Interlocal Agreement

Legal Approval

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 03:21 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Debbie Tamez		Started On: 09/09/2016 02:56 PM
Final Approval Date: 09/09/2016		

INTERLOCAL AGREEMENT
Tropical Texas Behavioral Health
and
County of Hidalgo

This Agreement is made and entered into pursuant to the Interlocal Cooperation Act, Chapter 791 of the Texas Government Code, regarding law enforcement services provided through the cooperation of municipalities, counties, and certain other local governments between **Tropical Texas Behavioral Health**, hereinafter referred to as TTBH, a community mental health center and a governmental unit of the state of Texas under the provisions of Vernon's Texas Codes Annotated, Health and Safety Code, §534.001 and the **County of Hidalgo acting by and through the Office of Constable, Precinct 4**, hereinafter referred to as the participating law enforcement agency. Collectively, governmental units are referred to as the "Parties".

I.
Law Enforcement Agency Obligations

1. Office of Constable, Precinct 4 will provide one (1) commissioned peace officer(s) to provide safety and security services (hereinafter referred to as "Services") to TTBH clinic location in Edinburg:

1901 South 24th Avenue
Edinburg TX 78539

2. Services will be provided Monday-Friday, 8:00 a.m. to 5:00 p.m. in lieu thereof "at such other times agreed by TTBH and the participating law enforcement agency".

3. The peace officer assigned by the participating law enforcement agency shall be empowered to enforce the laws of the State of Texas.

4. The peace officer assigned by the participating law enforcement agency must obtain Texas Commission on Law Enforcement (TCOLE) Class #4001 Mental Health Officer Certification within (6) months of assignment.

5. Nothing in this Agreement limits the authority of a peace officer to act under state law including (1) a citizen's arrest or an extraterritorial arrest authorized under Chapter 14, Code of Criminal Procedure, or other law; or (2) an action taken in the presence of and under the direction of or to assist another peace officer with appropriate territorial jurisdiction.

6. During the term of this Agreement, such peace officer at all times, shall remain and be treated as an employee of the County of Hidalgo and shall be subject to all applicable personnel policies, rules and procedures of the County of Hidalgo and the participating law enforcement agency.

7. In addition to the duties identified above, the participating law enforcement agency agrees that such peace officer assigned to the TTBH facility shall use his/her best efforts to respond to emergencies or other exigent circumstances which may exist at the TTBH facility during regular or agreed upon hours in which the response of a peace officer would be appropriate or in which the jurisdiction of the primary local law enforcement agency would be applicable. However, the peace officer shall use his/her sole judgment and/or discretion to determine whether the situation merits an emergency or exigent circumstance requiring response by such officer. Should the peace officer decide to exercise the above referenced discretion, it will not be considered a violation of this agreement.

8. TTBH and the participating law enforcement agency agree that the peace officer will not be required to perform any TTBH administrative duties required by law, other than those identified herein. This exclusion does not excuse the peace officer from any duty related to proper reporting of and documentation relating to the performance of duties under this Agreement.

9. **Confidentiality**. Peace officer must maintain confidentiality of information received during the performance of this agreement, including information which discloses confidential personal information or identifies any person served by TTBH, in accordance with applicable federal and state laws and TTBH rules.

10. The participating law enforcement agency agrees to notify the administrative office of the TTBH facility when the peace officer takes sick leave or has scheduled vacation, overtime or compensatory time off in accordance with County notice provisions. The participating law enforcement agency will provide a suitable replacement officer in any event that a normally assigned officer is unavailable by virtue of the use of the leave specified above. In the event that an officer is unexpectedly unavailable, the participating law enforcement agency shall provide a suitable replacement officer as soon as feasible.

11. The participating law enforcement agency may, but is not required to, consult with TTBH prior to making any staffing changes in connection with this Agreement but the recruiting, hiring and retention of Hidalgo County personnel shall remain the sole prerogative of the participating law enforcement agency. However, should TTBH believe that the peace officer is not fulfilling his job duties or meeting TTBH's expected performance standards under this Agreement, TTBH shall notify the participating law enforcement agency with specific information regarding such nonperformance. The participating law enforcement agency shall correct the unsatisfactory performance or provide a suitable replacement officer by the next scheduled service day or as soon as feasible after receipt of notification by TTBH.

II.
TTBH's Obligations

Payment. The total amount of this Agreement shall not exceed $64,769.00 per year for services performed under this agreement.

Billing. TTBH agrees to pay participating law enforcement agency on a monthly basis after receipt of an invoice. Such invoices shall be submitted to TTBH's Accounts Payable Department at PO Box 1108, Edinburg, TX 78540 or email to mnielsen@ttbh.org for each month of service, with payment made ten (10) days following receipt of invoice in the Fiscal Department. Payment will be made only based on an approved statement of services rendered by participating law enforcement agency.

III.
Miscellaneous

Term. This agreement shall be effective on October 1, 2016, and will expire on September 30, 2017, unless otherwise terminated. This agreement may automatically renew for one year terms (up to 3 years) by agreement of the parties.

Termination of Agreement. This agreement shall remain in effect until terminated by either party with a thirty (30) day written notice prior to any cancellation. Such written notice shall be mailed to the address designated under **Notice.**

Following written notification of intent to terminate and until the agreed upon date of termination, participating law enforcement agency will continue to have the responsibility to provide services under this agreement and TTBH will continue to have the responsibility to pay for the services in the manner specified in this agreement.

This agreement may be terminated immediately by TTBH when the life, health, welfare, or safety of individuals served or its employees is endangered or could be endangered either directly or through peace officer's willful or negligent discharge of its duties under this agreement.

TTBH and participating law enforcement agency may mutually agree to termination of this agreement at any time.

Amendments. This agreement may only be amended by written agreement between participating law enforcement agency and TTBH.

Entire Agreement. This agreement constitutes the entire agreement of the parties and supersedes any prior understanding or oral or written agreements between TTBH and participating law enforcement agency on the matters contained herein.

Contractor Relations. All participating law enforcement agency questions, issues, and comments regarding the management of this Agreement shall be directed to:

Hidalgo County Constable Precinct No. 4
Attention: Constable Atanacio "J.R." Gaitan
2814 S. Bus. Hwy 281
Edinburg, TX 78539
956-383-8560

Tropical Texas Behavioral Health
Attention: _____
1901 S. 24th Avenue
Edinburg, TX 78539
956-289-_____

Notice. Except as expressly provided herein, any notice required or permitted to be given under this agreement must be in writing and delivered in person or by registered or certified mail, return receipt requested, postage prepaid, to the individual and address shown below:

Ramon Garcia
Hidalgo County Judge
PO Box 1356
Edinburg, TX 78540

Tropical Texas Behavioral Health
PO Box 1108
Edinburg, TX 78540
Att'n: W. Terry Crocker
Chief Executive Officer

Copy to:
Hidalgo County Constable Precinct No. 4
Attention: Constable Atanacio "J.R." Gaitan
2814 S. Bus. Hwy 281
Edinburg, TX 78539

Governing Law. This agreement is being executed, delivered and shall be performed in the State of Texas; the laws of Texas shall govern its validity, construction, enforcement and interpretation. Proper venue for any litigation arising from this contract shall be in Hidalgo County, Texas.

Each party agrees to conform to its own applicable purchasing laws, regulations, policies and procedures with respect to the portion of the services under this Agreement performed by each party.

Conflict of Applicable Law. Nothing in this Agreement shall be construed so as to require the commission of any act contrary to law, and whenever there is any conflict between and provision of their Agreement and any present or future law, ordinance, or administrative, executive or judicial regulation, order or decree, or amendment thereof, contrary to which the parties have no legal right to contract, the latter shall prevail, but in such event the affected provision or provisions of this Agreement shall be modified only to the extent necessary to bring them within the legal requirements and only during the time such conflict exists.

No Waiver. No waiver by any party hereto of any breach of any provision of the Agreement shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision hereof.

Additional Documents. The parties hereto covenant and agree that they will execute such other and further instruments and documents as are or may become necessary or convenient to effectuate and carry out the terms of this Agreement.

Successors. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, legal representatives, successors, and assigns where permitted by this Agreement.

Assignment. This Agreement shall not be assignable.

Headings. The headings and captions contained in this Agreement are solely for convenience reference and shall not be deemed to affect the meaning or interpretation of any provision or paragraph hereof.

Gender and Number. All pronouns used in this Agreement shall include the other gender, whether used in the masculine, feminine or neuter gender, and singular shall include the plural whenever and so often as may be appropriate.

Authority to Execute. The execution and performance of this Agreement by the Parties has been duly authorized by all necessary laws, resolutions or corporate action, and this Agreement constitutes the valid and enforceable obligations of the participating law enforcement agency and TTBH in accordance with its terms.

Governmental Purpose. Each party hereto is entering into this Agreement for the purpose of providing for governmental services or functions and will pay for such services out of current revenues available to the paying party as herein provided.

Immunities. This Agreement is not intended to extend the liability of the Parties beyond that provided by law. Neither Party waives, nor shall be deemed to have hereby waived, any immunity or defense that would otherwise be available to it against claims arising from third parties.

Indemnification: Without waiving its sovereign immunity, and if and to the extent allowed by law, each party shall indemnify and hold harmless each other, its officers, officials, and employees from and against all claims and liabilities of any nature or kind, including costs and expenses for or on account of any claims, damages, losses, or expenses of any character whatsoever resulting in whole or in part from the negligent performance or omission of either party's employees or representatives connected with the activities described herein.

Commitment of Current Revenues Only. In the event that during any term hereof, the governing body of any party does not appropriate sufficient funds to meet the obligations of such party under the Agreement, then any party may terminate this Agreement upon ninety (90) days written notice to the other party. Each of the parties hereto agrees, however, to use its best efforts to secure funds necessary for the continued performance of this Agreement. The Parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of each party hereto.

This agreement shall become effective upon the execution by all parties as noted below.

HIDALGO COUNTY

_____
Ramon Garcia
Hidalgo County Judge
Date: _____

TROPICAL TEXAS BEHAVIORAL HEALTH

_____
W. Terry Crocker
Chief Executive Officer
Date: _____

_____
Constable Atanacio "J.R." Gaitan
Hidalgo County Constable Precinct No. 4
Date: _____

ATTEST:

_____
Arturo Guajardo, Jr., County Clerk
Date: _____

APPROVED AS TO FORM:
Office of Criminal District Attorney, Ricardo Rodriguez, Jr.

_____
Robert Vina, III
Assistant District Attorney
Date: _____

Zimbra **debbie.tamez@co.hidalgo.tx.us**

Fwd: Interlocal Agreement-Const Pct. 4 w/ TTBC for CC consideration

From : Monica Badillo <monica.badillo@co.hidalgo.tx.us> Fri, Aug 26, 2016 11:29 AM

Subject : Fwd: Interlocal Agreement-Const Pct. 4 w/ TTBC for CC consideration 1 attachment

To : Debbie Tamez <debbie.tamez@co.hidalgo.tx.us>

External images are not displayed. Display images below

Hi Debbie,

Victor Garza was wanting to include this one on the agenda also.

Please advise.

Thanks,

Monica Salinas Badillo, Court Administrator
Hidalgo County Executive Office
2818 S. Bus. Hwy. 281
Edinburg, Texas 78539
(956) 292-7655 ext. 5602
(956) 292-7034 (fax)

From: "Robert Vina" <robert.vina@da.co.hidalgo.tx.us>
To: "monica badillo" <monica.badillo@co.hidalgo.tx.us>
Cc: "horaldo sanchez" <horaldo.sanchez@co.hidalgo.tx.us>, "atanacio gaitan" <atanacio.gaitan@co.hidalgo.tx.us>, "Josephine Ramirez" <josephine.ramirez@da.co.hidalgo.tx.us>, "Victor Garza" <victor.garza@da.co.hidalgo.tx.us>, "Mary Cheaney" <mary.cheaney@da.co.hidalgo.tx.us>
Sent: Friday, August 26, 2016 11:16:13 AM
Subject: Interlocal Agreement-Const Pct. 4 w/ TTBC for CC consideration

Good Afternoon Ms. Badillo,
The attached Interlocal Agreement with Texas Tropical Behavioral Center has been reviewed by counsel and approved by TTBC. Please process it as customary and place an agenda item for the Commissioner's Court to consider it at the next meeting. The attached can be used as back-up for the agenda item. Please feel free to contact me if you have any questions.
Thank you,

Robert Viña III

Assistant District Attorney
Civil Litigation Division

Office of the Criminal District Attorney
Hidalgo County, Texas
100 E. Cano
Edinburg, TX 78539
(956) 292-7609 EXT 8187
(956) 292-7619 FAX

robert.vina@da.co.hidalgo.tx.us

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REVISED-Interlocal Agreement_Security Guard_Pct 4 Hid Co (ato rev 8-25) (1).doc
51 KB

AI-56329 **Human Resources** **7. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Raul Silguero, HUMAN RESOURCES

Submitted By: Diana Munoz, HUMAN RESOURCES

Department: HUMAN RESOURCES

Information

CAPTION

HIDTA Task Force (1291) / HIDTA Chapter 59 (1251):
1. Approval of the following personnel actions, effective next full pay period of 09/19/16:

Action	Slot#	Dept./ Program	Position Title	Current Budgeted Salary	Proposed Budgeted Salary
Salary Adjustment / Decrease	G001	270-003	Commander	$67,700.00	$67,700.00
	G025	270-011		$47,800.00	$36,800.00
Salary Adjustment / Increase	G008	270-003	Assistant Commander	$69,000.00	$69,000.00
	G037	270-011		$0.00	$11,000.00

2. Approval to revise the salary schedules in accordance with Commissioners Court action.

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-12X1-412-00-270-011-0-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

No Budgetary Impact.

Attachments

FISCAL
FISCAL
PARs

Form Review

Inbox	Reviewed By	Date
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Diana Munoz Started On: 09/09/2016 04:16 PM

Final Approval Date: 09/09/2016

HIDALGO COUNTY
DEPARTMENT OF BUDGET & MANAGEMENT
FISCAL NOTE

•Fiscal notes are prepared by the Department of Budget & Management to present the budgetary impact of requests by departments/offices or of new proposals that were not approved during the budget process.

To: **Commissioner' Court**
From: **Sergio Cruz, Budget Officer**
CC Date: **Tuesday, September 13, 2016** **Agenda Item:** **56329**

Summary of request/proposal:
HIDTA Chapter 59 (1251): Approval of the following personnel actions, effective 09/19/16:

Fund	Position	Slot #	Obj	Current Budgeted Salary Allowance	Proposed Budgeted Salary/ Allowance	Total Requested
1251	Commander	G025	113	47,800.00	36,800.00	(11,000.00)
1251	Assistant Commander	G035	113	0.00	11,000.00	11,000.00
				47,800.00	47,800.00	0.00

Budgetary Impact:

INCREASE/DECREASE ACCOUNT NUMBER		ACCOUNT (OBJECT) NAME		AMOUNT
6-1251-412-00-270-011-0-	113	HIDTA CHAPTER 59-	REG F/T EMPLOYEES	$0.00
6-1251-412-00-270-011-0-	211	HIDTA CHAPTER 59-	HEALTH INSURANCE	$0.00
6-1251-412-00-270-011-0-	212	HIDTA CHAPTER 59-	LIFE INSURANCE	$0.00
6-1251-412-00-270-011-0-	220	HIDTA CHAPTER 59-	FICA	$0.00
6-1251-412-00-270-011-0-	230	HIDTA CHAPTER 59-	RETIREMENT	$0.00
6-1251-412-00-270-011-0-	250	HIDTA CHAPTER 59-	UNEMPLOYMENT COMP	$0.00
6-1251-412-00-270-011-0-	260	HIDTA CHAPTER 59-	WORKER'S COMP	$0.00
			2016 Budgetary Impact	$0.00

2017 Budgetary Impact $0.00

Possible Funding Sources: **No Budgetary Impact.**

Comments:

Hidalgo Co. Budget Office
2/3/2005

HIDALGO COUNTY
DEPARTMENT OF BUDGET & MANAGEMENT
FISCAL NOTE

•Fiscal notes are prepared by the Department of Budget & Management to present the budgetary impact of requests by departments/offices or of new proposals that were not approved during the budget process.

To: **Commissioner' Court**
From: **Sergio Cruz, Budget Officer**
CC Date: **Tuesday, September 13, 2016** **Agenda Item:** **56329**

Summary of request/proposal:
HIDTA Task Force (1291): Approval of the following personnel actions, effective 09/19/16:

Fund	Position	Slot #	Obj	Current Budgeted Salary Allowance	Proposed Budgeted Salary/ Allowance	Total Requested
1291	Commander	G001	113	67,700.00	67,700.00	0.00
1291	Assistant Commander	G008	113	69,000.00	69,000.00	0.00
				136,700.00	136,700.00	0.00

Budgetary Impact:

INCREASE/DECREASE ACCOUNT NUMBER		ACCOUNT (OBJECT) NAME		AMOUNT
6-1291-412-00-270-003-6-	113	HIDTA TASK FORCE-	REG F/T EMPLOYEES	$0.00
6-1291-412-00-270-003-6-	211	HIDTA TASK FORCE-	HEALTH INSURANCE	$0.00
6-1291-412-00-270-003-6-	212	HIDTA TASK FORCE-	LIFE INSURANCE	$0.00
6-1291-412-00-270-003-6-	220	HIDTA TASK FORCE-	FICA	$0.00
6-1291-412-00-270-003-6-	230	HIDTA TASK FORCE-	RETIREMENT	$0.00
6-1291-412-00-270-003-6-	250	HIDTA TASK FORCE-	UNEMPLOYMENT COMP	$0.00
6-1291-412-00-270-003-6-	260	HIDTA TASK FORCE-	WORKER'S COMP	$0.00
			2016 Budgetary Impact	$0.00

2017 Budgetary Impact $0.00

Possible Funding Sources: **No Budgetary Impact.**

Comments:

Hidalgo Co. Budget Office
2/3/2005

HIDALGO COUNTY
Personnel Adjustment Request Form

RECEIVED
SEP -9 2016
HUMAN RESOURCES

DEPARTMENT NAME/NUMBER: CRIMINAL DISTRICT ATTORNEY (HIDTA) 1291/1251 DT

DATE: 9/8/2016

CURRENT POSITION TITLE: COMMANDER

CURRENT SLOT #: G001/G025

REQUESTED POSITION TITLE: COMMANDER

REQUEST FOR:

[ ] New Position [ ] Temporary Position [ ] Position Reclassification* [X] Other SALARY ADJUSTMENT (DECREASE)

* Civil Service Positions are submitted to the Civil Service Commission.

POSITION SALARY REQUEST:

Salary Amount from FUND 1291:

$ 67,700.00	$ 67,700.00	$ 0.00
Current Budgeted Salary	Proposed Budgeted Salary	Net Change

Salary Amount from FUND 1251:

$ 47,800.00	$ 36,800.00	$ (11,000.00)
Current Budgeted Salary	Proposed Budgeted Salary	Net Change

Position to be funded from one of the following:

[ ] Current Department Budget [ ] Annual Budget Cycle [ ] Will Require Additional Funds

[X] Other HIDTA CHAPTER 59 ACCT 6-1251-412-00-270-011-0-XXX

POSITION Type:

Full Time Employee Object 113 [X] Part Time Employee Object 114 [ ] _____ Enter hourly rate for temp. positions

Full Time Employee Temporary Object 121 [ ] Part Time Temporary Object 122 [ ] $ _____ Hourly Rate *2,080 hrs. per year = Annual Salary

TEMPORARY POSITIONS: N/A

Start Date	End Date	Working Days & Hours	Hours Per Week	Duration (2 weeks, 3 months, etc.)

CIVIL SERVICE:
Exempt [X]
Non-Exempt [ ]
N/A [ ]

FLSA: DT
Exempt [✓]
Non-Exempt [X]

JUSTIFICATION/PRIORITY: (Explain why this position or adjustment request is essential)

ADJUSTMENT NEEDED TO ALIGN SALARY WITH DUTIES, RESPONSIBILITIES AND REQUIREMENTS OF THE POSITION.

NEW POSITION: Brief job description and attach a copy of the new job description.

POSITION RECLASSIFICATION: Explain change and/or increase in duties and responsibility. (Attach new job description)

COMMENTS: (Any comments you wish to make regarding this request)

HUMAN RESOURCES: Classification and Salary Recommendation

BUDGET & MANAGEMENT: Classification and Salary Recommendation

1. DEPARTMENT HEAD	Date 09/08/16	FUNDING AVAILABLE IN DEPT. BUDGET	[X]	YES	[ ]	NO
2. HUMAN RESOURCES DIRECTOR	Date 9/9/2016	PERSONNEL PROCEDURES COMPLETED	[✓]	YES	[ ]	NO
3. DEPARTMENT OF BUDGET & MANAGEMENT	Date 9/12/16	BUDGET PROCEDURES COMPLETED	[✓]	YES	[ ]	NO
4. COMMISSIONERS' COURT APPROVAL	Date					

HIDALGO COUNTY
Personnel Adjustment Request Form

RECEIVED
SEP -9 2016
HUMAN RESOURCES

DEPARTMENT NAME/NUMBER: CRIMINAL DISTRICT ATTORNEY (HIDTA) 1291/1251 DI

DATE: 9/8/2016

CURRENT POSITION TITLE: ASSISTANT COMMANDER

CURRENT SLOT #: G008/G032 DI 5/7 G037

REQUESTED POSITION TITLE: ASSISTANT COMMANDER

REQUEST FOR:

☐ New Position ☐ Temporary Position ☐ Position Reclassification* ☒ Other SALARY ADJUSTMENT (INCREASE)

* Civil Service Positions are submitted to the Civil Service Commission.

POSITION SALARY REQUEST:

Salary Amount from FUND 1291:

$ 69,000.00	$ 69,000.00	$ 0.00
Current Budgeted Salary	Proposed Budgeted Salary	Net Change

Salary Amount from FUND 1251:

$ 0.00	$ 11,000.00	$ 11,000.00
Current Budgeted Salary	Proposed Budgeted Salary	Net Change

Position to be funded from one of the following:

☐ Current Department Budget ☐ Annual Budget Cycle ☐ Will Require Additional Funds

☒ Other HIDTA CHAPTER 59 ACCT 6-1251-412-00-270-011-0-XXX

POSITION Type:

Full Time Employee Object 113 ☒ Part Time Employee Object 114 ☐ _____ Enter hourly rate for temp. positions

Full Time Employee Temporary Object 121 ☐ Part Time Temporary Object 122 ☐ $ _____ Hourly Rate "2,080 hrs. per year = Annual Salary

TEMPORARY POSITIONS: N/A

Start Date	End Date	Working Days & Hours	Hours Per Week	Duration (2 weeks, 3 months, etc.)

CIVIL SERVICE:
Exempt ☒
Non-Exempt ☐
N/A ☐

FLSA:
Exempt ☐
Non-Exempt ☒

JUSTIFICATION/PRIORITY: (Explain why this position or adjustment request is essential)

ADJUSTMENT NEEDED TO ALIGN SALARY WITH DUTIES, RESPONSIBILITIES AND REQUIREMENTS OF THE POSITION.

NEW POSITION: Brief job description and attach a copy of the new job description.

POSITION RECLASSIFICATION: Explain change and/or increase in duties and responsibility. (Attach new job description)

COMMENTS: (Any comments you wish to make regarding this request)

HUMAN RESOURCES: Classification and Salary Recommendation

BUDGET & MANAGEMENT: Classification and Salary Recommendation

1.	DEPARTMENT HEAD	09/08/16 Date	FUNDING AVAILABLE IN DEPT. BUDGET	[X] YES	[ ] NO
2.	HUMAN RESOURCES DIRECTOR	9/08/2016 Date	PERSONNEL PROCEDURES COMPLETED	[✓] YES	[ ] NO
3.	DEPARTMENT OF BUDGET & MANAGEMENT	9/12/2016 Date	BUDGET PROCEDURES COMPLETED	[✓] YES	[ ] NO
4.	COMMISSIONERS' COURT APPROVAL	Date			

AI-56287 **Health & Human Services Dept.** **8. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Eddie Olivarez, HEALTH & HUMAN SERVICES DEPT.

Submitted By: Mike Escaname, HEALTH & HUMAN SERVICES DEPT.

Department: HEALTH & HUMAN SERVICES DEPT.

Information

CAPTION

1. Requesting approval to accept the DSHS FY 17 Title V Fee-For-Service Prenatal Medical grant contract amendment #2016-003894-01. The purpose of the amendment is to amend certain contractual language, to add the FY 17 award allocation of $144,029 and to extend the contract term to August 31, 2017.
2. Requesting approval for County Judge to e-sign the Prenatal Medical grant contract Amendment and related documents.
3. Requesting approval of the Certification of Revenue in the amount of $144,029.00.
4. Requesting approval of the budget appropriation in the amount of $144,029.00.
5. Requesting approval to revise the salary schedule.

BACKGROUND

07/05/16 - AI-55162 - Approval to submit grant renewal for FY 17.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1293-441-10-340-052-6-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

No local match required.

Attachments

Grant Contract Amendment
Budget Appropriation
Salary Budget
Funding Source
COR

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 03:37 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Mike Escaname Started On: 09/08/2016 02:47 PM
Final Approval Date: 09/09/2016

DEPARTMENT OF STATE HEALTH SERVICES

AMENDMENT #: 01

The Department of State Health Services (DSHS) and Hidalgo County (Contractor) agree to amend Contract ID# 2016-003894-00 (Contract), which was effective on August 31, 2015. This Contract has not been amended prior to this Amendment. This Amendment will be denominated as Contract No. 2016-003894-01.

I. The Parties agree to amend Section 2. Total Amount, to increase the total amount of the Contract to TWO HUNDRED EIGHTY-EIGHT THOUSAND FIFTY-EIGHT DOLLARS ($288,058), of which ONE HUNDRED FORTY-FOUR THOUSAND TWENTY-NINE DOLLARS ($144,029) is allocated toward the contract period of September 1, 2016 through August 31, 2017.

II. The Parties agree to amend Section 4. Term of the Contract, to extend the end of the Contract term to August 31, 2017.

III. The Parties agree to amend the fourth paragraph in Section 7. Statement of Work, to add the following document to the list of documents that are incorporated by reference and made a part of the Contract: DSHS FY17 Title V Fee-for-Service Prenatal Medical and Prenatal Dental Renewal Application.

IV. The Parties agree to amend the BILLING INSTRUCTIONS section of Section 7. Statement of Work, to add the following paragraphs:

Contractor has 45 days from August 31, 2017 to enter data into IBIS system for services provided from September 1, 2016 to August 31, 2017. Contractor will not be reimbursed for services entered into IBIS after the 45 day deadline.

Contractor shall bill DSHS on a monthly basis for allowable services provided to Title V eligible clients. Bills for all allowable services shall be submitted as aggregate activity reports with a DSHS Monthly Reimbursement Request and shall not refer to or identify individual clients. Contractor shall bill within thirty (30) days after the end of the month in which services were provided or within sixty (60) days in cases of potentially Medicaid eligible individuals who are denied eligibility by the Health and Human Services Commission. All bills shall be submitted within forty-five (45) days of the end of the Contract term.

In billing DSHS, Contractor shall certify that all billed services have been provided only to individuals who have been determined to be eligible for Title V services. DSHS will pay Contractor for all acceptable vouchers submitted up to Contractor's contract ceiling amount. Billing vouchers submitted outside of the timeframes indicated above shall be subject to disallowance.

V. The Parties agree to revise the first paragraph in the BUDGET section of Section 7. Statement of Work, to the following: Funding is further detailed in the Fee for Service/Unit Rate document.

VI. The Parties agree to amend Section 9. Performance Measures, to add the Target Number of unduplicated clients that Contractor shall provide Title V Prenatal Services to for the contract period September 1, 2016 to August 31, 2017, which is six hundred eight-nine (689) unduplicated clients.

VII. The Parties agree to amend Section 11. Renewals Remaining, to reflect that there is one (1) renewal remaining under the Contract.

VIII. The Parties agree to amend Section 15. Programmatic Reporting Requirements, to extend the date in the Period End column to 08/31/2017, for all reports.

IX. The Parties agree to delete Section 16. Special Provisions, in its entirety and replace it with the following:

16. Special Provisions

For purposes of this Contract only, the following provisions shall apply:

1. General Provisions, Article II Compliance and Reporting, Section 2.05 Reporting, is revised to include the following:

Contractor shall report to DSHS using established reports as directed by the Policies and Procedures Manual for Title V Maternal and Child Fee for Service for Child Health, Dental and Prenatal, and other data and/or reports deemed necessary by DSHS, upon reasonable notice to Contractor.

2. General Provisions, Article II, Compliance and Reporting, is revised to add the following new section:

Section 2.13 Eligibility. All individuals considered for Title V eligibility must be screened and determined eligible using a DSHS or Title V program-approved screening process as updated in the spring of each year when federal poverty levels and eligibility determination forms are revised.

3. General Provisions, Article III, Services, is revised to add the following new section:

Section 3.06 Co-pay. Contractor may assess a co-pay from clients who receive services under this Contract. A co-pay shall not be assessed from such clients if their family income is at or below 100% of the most recently defined federal poverty level. A co-pay assessment shall not exceed 25% of the authorized and approved reimbursement amount for allowed services. A client shall not be denied services due to inability to pay. Contractor shall make reasonable efforts to investigate and apply for all other sources of third party funding available to, or identified by, the client before submitting claims for allowable costs.

4. General Provisions, Article IV, Funding, is revised to add the following new section:

Section 4.03 Program Income. Program Income may be collected and retained by Contractor so long as it is used to provide services specified in the scope of work detailed in this Contract. The use of Program Income shall be reported on the monthly billing vouchers for services provided to Title V eligible clients.

5. General Provisions, Article V, Payment Methods and Restrictions, Section 5.02 Invoice/Billing Submission, is revised to add the following:

d. Contractor's contract amount under this Contract is a ceiling against which it may bill, on a fee-for-service basis, for the provision of allowable services to Title V eligible clients. Only allowable services provided to Title V eligible clients may be billed against this ceiling. The current schedule of allowable services and rates, as well as Title V eligibility requirements, may be modified at the sole discretion of DSHS with thirty (30) days written notice to Contractor. The notice will provide Contractor with an opportunity to terminate this Contract should the modification include a reduction in rates. Contractor shall have thirty (30) days from receipt of this notice to exercise the option for termination. If the Contractor does not exercise the option during the thirty (30) day time period, Contractor shall be deemed to have waived the option.

e. Billing Activity: DSHS shall distribute funds in a way that will maximize the delivery of authorized

services to eligible clients. DSHS will monitor Contractor's billing activity. If utilization is below that projected in Contractor's contract ceiling amount, shown in Section 17.c. Fee for Service/Unit Rate, Contractor's ceiling may be subject to a decrease for the remainder of the Contract period. Contractor may be subject to contract ceiling amount decreases if Contractor's billing activity is less than projected.

f. DSHS may pay for additional services as specified in this Contract if provided by Contractor during the term of this Contract (but not otherwise paid during the Contract term) if it is in the best interest of the State and the DSHS Program to do so, and if funds are available. If Contractor exceeds the ceiling amount of the Contract, Contractor shall continue to bill DSHS for the services provided. DSHS may pay for these additional services if funds become available at a later date.

6. General Provisions, Article VI, Terms and Conditions of Payment, is revised to add the following:

Section 6.04 Payment in Full. Contractor shall accept reimbursement or payment from DSHS and any applicable fees from clients for clinical health services as payment in full for services or goods provided to clients. Contractor shall not seek additional reimbursement or payment for services or goods from clients other than applicable fees for clinical health services.

7. General Provisions, Article X, Access, Inspection and Audit of Records, Section 10.01 Access and Inspection, is revised to add the following:

Contractor shall allow DSHS to conduct on-site quality assurance reviews as deemed necessary by DSHS. Unsatisfactory review findings may result in implementation of General Provisions, Article XV, Breach of Contract and Remedies for Non-Compliance.

8. General Provisions, Article XII, Assurances and Certifications, Section 12.01 Certification, is revised to add the following:

If appropriate, Contractor certifies that neither the Contractor, nor any individual who has a direct or indirect ownership or controlling interest of 5% or more of the Contracting Agency, nor any officer, director, agent or managing employee (e.g. general manager, business manager, administrator, director, or like individual who exercises operational or managerial control over the Contractor or who directly or indirectly conducts the day-to-day business of the Contractor is an entity or individual who:

a. Has been convicted of any offense under 42 U.S.C. § 1320a-7(b)(1)-(3);
b. Has had a civil monetary penalty assessed under 42 U.S.C. § 1320a and/or 42 U.S.C. § 1320a-8; or,
c. Has been excluded from participation in a program under 42 U.S.C. § 1395 et seq.; or under a State health care program.

If the foregoing statement is not true, Contractor shall submit a disclosure/ownership form to DSHS. Contractor shall immediately notify the DSHS in writing, in the event that the foregoing statement changes during the term of this Contract. A false statement regarding Contractor's status will be treated as a material misrepresentation.

9. General Provisions, Article XIII, General Business Operations of Contractor, Section 13.01 Program Site, is revised to add the following:

Contractor shall notify the Contract Development and Support Branch in writing of any clinic site information changes, e.g. changes in contact person, hours of operation, address, Texas Provider Identification (TPI) number, National Provider Identification (NPI) number, the closure, relocation, and/or opening of clinic site(s).

X. Except as provided in this Amendment, all other terms and conditions in the Contract will remain and be in full effect. To the extent of a conflict between the terms of the Contract and the terms of this Amendment, the terms of this Amendment shall prevail.

XI. This Amendment is effective on September 1, 2016.

Department Of State Health Services	**Contractor**
By:	By:
Title:	Title:
Date:	Date:

TEXAS Department of State Health Services

FEE FOR SERVICE / UNIT RATE

Organization Name: Hidalgo County
Contract Number: 2016-003894-01
Proposal ID: FCHS-2017-CHS/TV-PRE-00013
Program ID: CHS/TV-PRENATAL
Procurement ID: GST-2016-Solicitation-00029
Procurement Name: FCHS GOLIVE TITLE V PRENATAL SERIVCES

Item Number	Service	Type	Number to Serve	Rate	Cost
1	Prenatal Medical (includes costs for laboratory and case management) 68 of 500	Clients	689	$209.04	$144,029
2	Prenatal Dental 15 of 500	Clients	0	$0	$0
	 0 of 500				
Total					**$144,029**

54923

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TEXAS Department of State Health Services

CHILD SUPPORT CERTIFICATION

Organization Name: Hidalgo County
Contract Number: 2016-003894-01

The Texas Family Code §231.006, places certain restriction on child support obligors. Contracts with governmental entities or nonprofit corporations are not subject to §231.006.

The contractor identified above is not a governmental entity or a nonprofit corporation.

The contractor certifies the following is a complete list of the names and social security numbers of either the individual or sole proprietor who is the contractor or each partner, shareholder, or owner with an ownership interest of at least 25% of the contractor/business entity:

Name:	Social Security Number:

Under the Texas Family Code, §231.006, the contractor certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment withheld if this certification is in-accurate. A child support abligor who is more than 30 days delinquent in paying child support or a business entity in which the obligor (who is more than 30 days delinquent) is the sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25% is not eligible to receive the specified grant, loan or payment. The contractor understands that it is the contractor's responsibility to verify whether a child support obligor who is more than 30 days delinquent is the sole proprietor, partner, shareholder or owner with an ownership interest of at least 25%.

○ Applicable ◉ Non-Applicable

Signature of Authorized Individual Date:

Navigation Links

Status	Page Name	Note	Created By	Last Modified By
	Child Support Certification			
	Disclosure of Ownership and Control Interest Statement			
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification			
	Signature Page		Burrell, Deserie - FCHS 8/22/2016 12:45:00 PM	Adams, Jason - FCHS 8/26/2016 11:27:43 AM

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TEXAS Department of State Health Services

DISCLOSURE OF OWNERSHIP AND CONTROL INTEREST STATEMENT

For definitions, procedures and requirements, refer to the appropriate Statutes or Regulations:
Title V – 42 USC §1397d
Title XVIII – 42CFR 420.200 – 206
Title XIX – 42CFR 455.100 – 106

Organization Name: Hidalgo County
Contract Number: 2016-003894-01

Completion and submission of this form is a condition of participation, certification, or recertification under any of the programs established by titles V, XVIII, and XIX, or as a condition of approval or renewal of a contractor agreement between the disclosing entity and the Department of State Health Services (DSHS) under any of the above-titled programs, a full and accurate disclosure of ownership and financial interest is required. Failure to submit requested information may result in a refusal by DSHS to enter into an agreement or contract with any such institution or in termination of existing agreements.

Answer all questions as of the current date.

Select the title(s) of the program(s) your organization provides services under: *

- [x] Title V
- [ ] Title XVIII
- [ ] Title XIX

Additional Orgnaization Information:

If your organization operates under a DBA, state the name below:

Enter the organization's provider number below:

General Questions:

1. Are there any individuals or organizations having a direct or indirect ownership or control interest of 5 percent or more in the institution, organization,or agency that have been convicted of a criminal offense related to the involvement of such persons, or organizations in any of the programs established by titles XVIII or XIX?

( ) Yes (•) No

If yes, complete the table below:

Name:
Address:
City:
State:
Zip Code:

2. Are there any directors, officers, agents, or managing employees of the institution, agency or organization who have ever been convicted of a criminal offense related to their involvement in such programs established by titles XVIII or XIX?

( ) Yes (•) No

If yes, complete the table below:

Name:
Address:
City:

State:
Zip Code:

3. Are any of the individuals, listed in question 1 and/or 2, currently employed by the institution, agency, or organization in a managerial, accounting, auditing, or similar capacity who were employed by the institution's, organization's, or agency's fiscal intermediary or carrier within the previous 12 months? **(Title XVIII providers only)**

Yes No

If yes, complete the table below:
Name:
Address:
City:
State:
Zip Code:

4. List names, addresses for individuals having direct or indirect ownership or a controlling interest in the entity. If more than one individual is reported and any of these persons are related to each other, this must be reported under the Remarks Section.

Name:
Address:
City:
State:
Zip Code:
Remarks:

5. List organizations having direct or indirect ownership or a controlling interest in the entity.

Organization Name:
Director Name:
EIN Number:
Entity Type: If Other, Specify Type:
Address:
City:
State:
Zip Code:

6. Are any owners of the disclosing entity also owners of other Medicare/Medicaid facilities? (Example: sole proprietor, partnership or members of Board of Directors.)

Yes No

If yes, list names, addresses of individuals and provider numbers.

Name:	Address:	Provider Number:

7. Has there been a change in ownership or control within the last year?

Yes No

If yes, enter date of ownership change or control:

8. Do you anticipate any change of ownership or control within the next year?

Yes No

If yes, enter date of anticipated ownership change or control:

9. Do you anticipate filing for bankruptcy within the year?

Yes No

If yes, enter date of anticipated date for filing bankruptcy:

10. Is this facility operated by a management company, or leased in whole or part by another organization?

Yes No

If yes, give date of change in operations:

11. Has there been a change in Administrator, Director of Nursing, or Medical Director within the last year?
Yes No

12. Is the facility currently affiliated with a chain or previously affiliated with a chain?
Yes No

If yes, complete the table below:

Name:
Affiliation Status:
Affiliate No.:
EIN Number:
Address:
City:
State:
Zip Code:

13. Have you increased your bed capacity by 10 percent or more or by 10 beds, whichever is greater, within the last 2 years?
Yes No

If yes, provide the following:

Year of change:
Current Number of Beds:
Prior Number of Beds:

WHOEVER KNOWINGLY AND WILLFULLY MAKES OR CAUSES TO BE MADE A FALSE STATEMENT OR REPRESENTATION OF THIS STATEMENT, MAY BE PROSECUTED UNDER APPLICABLE FEDERAL OR STATE LAWS. IN ADDITION, KNOWINGLY AND WILLFULLY FAILING TO FULLY AND ACCURATELY DISCLOSE THE INFORMATION REQUESTED MAY RESULT IN DENIAL OF A REQUEST TO PARTICIPATE OR WHERE THE ENTITY ALREADY PARTICIPATES, A TERMINATION OF ITS AGREEMENT OR CONTRACT WITH DSHS.

As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and correct to the best of my knowledge.

Signature of Authorized Individual: Date:

Navigation Links

Status	Page Name	Note	Created By	Last Modified By
	Child Support Certification			
	Disclosure of Ownership and Control Interest Statement			
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification			
	Signature Page		Burrell, Deserie - FCHS 8/22/2016 12:45:00 PM	Adams, Jason - FCHS 8/26/2016 11:27:43 AM

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TEXAS Department of State Health Services

FISCAL FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA) CERTIFICATION

The certifications enumerated below represent material facts upon which DSHS relies when reporting information to the federal government required under federal law. If the Department later determines that the Contractor knowingly rendered an erroneous certification, DSHS may pursue all available remedies in accordance with Texas and U.S. law. Signor further agrees that it will provide immediate written notice to DSHS if at any time Signor learns that any of the certifications provided for below were erroneous when submitted or have since become erroneous by reason of changed circumstances. If the Signor cannot certify all of the statements contained in this section, Signor must provide written notice to DSHS detailing which of the below statements it cannot certify and why.

Organization Name	Hidalgo County				
Address	1304 S 25th St				
City	Edinburg	State	Texas	Zip Code (9 digit)	78539
Payee Name	Hidalgo County				
Address	Hidalgo County Treasurer 2810 S Business 281				
City	Edinburg	State	TX	Zip Code (9 digit)	78539-6243
Vendor identification No.		17460007176		MailCode	060
Payee DUNS No. *		103110834			

1. Did your organization have a gross income, from all sources, of more than $300,000 in your previous tax year? *

(●) Yes ( ) No

2. Certification Regarding % of Annual Gross from Federal Awards.

Did your organization receive 80% or more of its annual gross revenue from federal awards during the preceding fiscal year?

( ) Yes (●) No

3. Certification Regarding Amount of Annual Gross from Federal Awards.

Did your organization receive $25 million or more in annual gross revenues from federal awards in the preceding fiscal year?

(●) Yes ( ) No

Identify contact persons for FFATA Correspondence. *

FFATA Contact Person #1

Name*	Ramon Garcia
Email*	ramon.garcia@co.hidalgo.tx.us
Telephone*	(956) 318-2600

FFATA Contact Person #2

Name*	Ray Eufracio
Email*	ray.eufracio@auditor.co.hidalgo.tx.us
Telephone*	(956) 318-2511

☐ As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and

correct to the best of my knowledge.

E-Signature Date

Navigation Links

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DATE: September 13, 2016

DEPARTMENT HEAD: Eduardo Olivarez, Chief Administrative Officer

DEPARTMENT NAME: Hidalgo County Health & Human Services Department

ACCOUNT NUMBER: 6-1293-441-10-340-052-6-XXX Prenatal

SUBJECT: Budget Amendments (Increases) in Accordance with Local Government Code, Chapter 111, Subchapter C

Honorable Commissioner's Court of Hidalgo County:

I would like to request the following amendments (increase) to my department budget in accordance with Local Government Code, Chapter 111, Subchapter C.

INCREASE OBJECT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT -
Personnel		
6-1293-441-10-340-052-6-113	Prenatal - Reg F/T Employees	$ 38,300.00
Fringes		
6-1293-441-10-340-052-6-211	Prenatal - Health Insurance	$ 9,600.00
6-1293-441-10-340-052-6-212	Prenatal - Life Insurance	$ 60.00
6-1293-441-10-340-052-6-220	Prenatal - FICA	$ 2,950.00
6-1293-441-10-340-052-6-230	Prenatal - Retirement	$ 4,400.00
6-1293-441-10-340-052-6-250	Prenatal - Unemployment Comp	$ 250.00
6-1293-441-10-340-052-6-260	Prenatal - Workers Comp	$ 400.00
Travel		
6-1293-441-10-340-052-6-581	Prenatal - In-County Travel	$ 2,000.00
Supplies		
6-1293-441-10-340-052-6-610	Prenatal - General Supplies	$ 11,069.00
Other		
6-1293-441-10-340-052-6-339	Prenatal - Other Professional Services	$ 75,000.00
		$ -
	TOTAL APPROPRIATION	$ 144,029.00
6-1293-334-10-340-052-6-000	Prenatal - Grant Revenue	$ 144,029.00
	TOTAL APPROPRIATION	$ 144,029.00

REASON: To appropriate the grant allocation for the Prenatal FY 17 program

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONER'S C(DATE ATTEST CO. CLERK

PRENATAL FY 17

Salary / Fringes Salary Schedule
09/01/2016 - 08/31/2017
For Budget Purposes Only

					Hourly		Work Hours	Work	09/01/16 to 08/31/17			Distribution				Insurance	
Slot #	Position Title	2016	General Fund Salary	Prenatal Salary	Hourly Rate	Hourly Rate + 0% COLA	# of Hours 09/01/2016 to 12/31/16	# of Hours 01/01/17 to 08/31/17	Projected Sal 09/01/2016 to 12/31/16	Projected Sal 01/01/17 to 08/31/17	Projected Salaries	340-003	%	340-052	%	Health Ins.	Life Ins.
0003	Clinic Aide II	25,462.00	5,733.00	19,729.00	9.49	9.49	696	1,392	6,601.63	13,203.25	19,804.88	5,733.00	0.23	19,804.88	0.77	4,717.23	29.10
G004	Clerk II	22,972.00	4,595.00	18,377.00	8.84	8.84	696	1,392	6,149.23	12,298.45	18,447.68	4,595.00	0.20	18,447.68	0.80	4,870.24	30.05
							Total Gross Salary - >							**38,252.56**		**9,587.47**	**59.15**
							Health Insurance - ($6,256.00 / yr * % of pay from grant)							**9,587.47**			
							Life Insurance - ($37.56 / Yr / person prorated by % of pay from grant)							**59.15**			
							FICA - (7.65% * Gross Salary)							**2,926.32**			
							Retirement - (11.25% * Gross Salary)							**4,303.41**			
							Unemployment - (.60% * Gross Salary)							**229.52**			
							Worker's Comp - (.94% * Gross Salary)							**359.57**			
														55,718.01			

Notes:

1 There are 2,088 work hours during the grant period of 08/31/2015 through 08/31/2016.
2 Health Insurance is $6,256.00 / yr times the percentage of pay from the grant. ($514.00 * 4 months + $525.00 * 8 months) (Prorated based on % of grant funded portion)
3 0% COLA budgeted from 01/01/17.
4 Fringe rates - Current rates as of 09/08/16.

Prepared by:
Health Human Services Dept.
09/08/2016

Prepared by:
Health Human Services Dept.
09/08/2016

Mike Escaname

From: Bourda,Michael (HHSC/DSHS) <Michael.Bourda@hhsc.state.tx.us>
Sent: Thursday, September 08, 2016 1:25 PM
To: Mike Escaname
Subject: RE: Request - Funding Source for Title V Fee-For-Service PRENATAL - Hidalgo County

The Title V Prenatal funds are State dollars…

From: Mike Escaname [mailto:miguel.escaname@hchd.org]
Sent: Thursday, September 08, 2016 1:23 PM
To: Bourda,Michael (HHSC/DSHS)
Subject: Request - Funding Source for Title V Fee-For-Service PRENATAL - Hidalgo County

Hello Michael,

Thanks for the response to my previous question. I have another:

We are in receipt of our **Title V Fee-for-Service PRENATAL MEDICAL AND PRENATAL DENTAL RENEWAL** contract Amendment (attached).

For financial reporting purposes, I'd appreciate if you can provide the funding source for the additional funds that have been added in the amount of $144,029.00.

If federal funds, please provide the CFDA #.

Thanks,

Mike Escaname
Budget Manager
Hidalgo County Health & Human Services Department
1304 S. 25 Ave
Edinburg, TX 78542-7205
Main Line (956) 383-6221
Direct Line (956) 292-7000 ext. 7210

Please note My email address has changed. Please be sure to update your contact information with my new email address.

COUNTY of HIDALGO

EDINBURG, TEXAS 78539

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

September 9, 2016

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioner's court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the receipt of an award from the Texas Department of State Health Services (TDSHS). These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$144,029.00	Award No. 2016-003894-01 CHS/TV-PRENATAL CHS-Title-V-Prenatal Services

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

THE COUNTY OF HIDALGO

AI-56287 **Health & Human Services Dept.** 19. 0.

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Eddie Olivarez, HEALTH & HUMAN SERVICES DEPT.

Submitted By: Mike Escaname, HEALTH & HUMAN SERVICES DEPT.

Department: HEALTH & HUMAN SERVICES DEPT.

Information

CAPTION

1. Requesting approval to accept the DSHS FY 17 Title V Fee-For-Service Prenatal Medical grant contract amendment #2016-003894-01. The purpose of the amendment is to amend certain contractual language, to add the FY 17 award allocation of $144,029 and to extend the contract term to August 31, 2017.
2. Requesting approval for County Judge to e-sign the Prenatal Medical grant contract Amendment and related documents.
3. Requesting approval of the Certification of Revenue in the amount of $144,029.00.
4. Requesting approval of the budget appropriation in the amount of $144,029.00.
5. Requesting approval of the salary schedule.

BACKGROUND

07/05/16 - AI-55162 - Approval to submit grant renewal for FY 17.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1293-441-10-340-052-6-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

No local match required.

Attachments

Grant Contract Amendment

Budget Appropriation

Salary Budget

Funding Source

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 03:37 PM
Final Approval		
Form Started By: Mike Escaname		Started On: 09/08/2016 02:47 PM

Minerva Diaz

From: Mike Escaname [miguel.escaname@hchd.org]
Sent: Thursday, September 08, 2016 3:09 PM
To: minerva.diaz@auditor.co.hidalgo.tx.us
Subject: Request for Certification of Revenue - Prenatal FY 17 - $144,029.00
Attachments: 2016-003894-01 Prenatal FY 17 Contract.pdf

Minerva,

I'd appreciate if you can arrange for a Certification of Revenue in the amount of $144,029.00. We are presenting AI-56287 to CC to accept our Prenatal FY 17 Amendment.

Thanks,

Mike Escaname
Budget Manager
Hidalgo County Health & Human Services Department
1304 S. 25 Ave
Edinburg, TX 78542-7205
Main Line (956) 383-6221
Direct Line (956) 292-7000 ext. 7210

DEPARTMENT OF STATE HEALTH SERVICES

AMENDMENT #: 01

The Department of State Health Services (DSHS) and Hidalgo County (Contractor) agree to amend Contract ID# 2016-003894-00 (Contract), which was effective on August 31, 2015. This Contract has not been amended prior to this Amendment. This Amendment will be denominated as Contract No. 2016-003894-01.

I. The Parties agree to amend Section 2. Total Amount, to increase the total amount of the Contract to TWO HUNDRED EIGHTY-EIGHT THOUSAND FIFTY-EIGHT DOLLARS ($288,058), of which ONE HUNDRED FORTY-FOUR THOUSAND TWENTY-NINE DOLLARS ($144,029) is allocated toward the contract period of September 1, 2016 through August 31, 2017.

II. The Parties agree to amend Section 4. Term of the Contract, to extend the end of the Contract term to August 31, 2017.

III. The Parties agree to amend the fourth paragraph in Section 7. Statement of Work, to add the following document to the list of documents that are incorporated by reference and made a part of the Contract: DSHS FY17 Title V Fee-for-Service Prenatal Medical and Prenatal Dental Renewal Application.

IV. The Parties agree to amend the BILLING INSTRUCTIONS section of Section 7. Statement of Work, to add the following paragraphs:

Contractor has 45 days from August 31, 2017 to enter data into IBIS system for services provided from September 1, 2016 to August 31, 2017. Contractor will not be reimbursed for services entered into IBIS after the 45 day deadline.

Contractor shall bill DSHS on a monthly basis for allowable services provided to Title V eligible clients. Bills for all allowable services shall be submitted as aggregate activity reports with a DSHS Monthly Reimbursement Request and shall not refer to or identify individual clients. Contractor shall bill within thirty (30) days after the end of the month in which services were provided or within sixty (60) days in cases of potentially Medicaid eligible individuals who are denied eligibility by the Health and Human Services Commission. All bills shall be submitted within forty-five (45) days of the end of the Contract term.

In billing DSHS, Contractor shall certify that all billed services have been provided only to individuals who have been determined to be eligible for Title V services. DSHS will pay Contractor for all acceptable vouchers submitted up to Contractor's contract ceiling amount. Billing vouchers submitted outside of the timeframes indicated above shall be subject to disallowance.

V. The Parties agree to revise the first paragraph in the BUDGET section of Section 7. Statement of Work, to the following: Funding is further detailed in the Fee for Service/Unit Rate document.

VI. The Parties agree to amend Section 9. Performance Measures, to add the Target Number of unduplicated clients that Contractor shall provide Title V Prenatal Services to for the contract period September 1, 2016 to August 31, 2017, which is six hundred eight-nine (689) unduplicated clients.

VII. The Parties agree to amend Section 11. Renewals Remaining, to reflect that there is one (1) renewal remaining under the Contract.

VIII. The Parties agree to amend Section 15. Programmatic Reporting Requirements, to extend the date in the Period End column to 08/31/2017, for all reports.

AMENDMENT #: 01

IX. The Parties agree to delete Section 16. Special Provisions, in its entirety and replace it with the following:

16. Special Provisions

For purposes of this Contract only, the following provisions shall apply:

1. General Provisions, Article II Compliance and Reporting, Section 2.05 Reporting, is revised to include the following:

Contractor shall report to DSHS using established reports as directed by the Policies and Procedures Manual for Title V Maternal and Child Fee for Service for Child Health, Dental and Prenatal, and other data and/or reports deemed necessary by DSHS, upon reasonable notice to Contractor.

2. General Provisions, Article II, Compliance and Reporting, is revised to add the following new section:

Section 2.13 Eligibility. All individuals considered for Title V eligibility must be screened and determined eligible using a DSHS or Title V program-approved screening process as updated in the spring of each year when federal poverty levels and eligibility determination forms are revised.

3. General Provisions, Article III, Services, is revised to add the following new section:

Section 3.06 Co-pay. Contractor may assess a co-pay from clients who receive services under this Contract. A co-pay shall not be assessed from such clients if their family income is at or below 100% of the most recently defined federal poverty level. A co-pay assessment shall not exceed 25% of the authorized and approved reimbursement amount for allowed services. A client shall not be denied services due to inability to pay. Contractor shall make reasonable efforts to investigate and apply for all other sources of third party funding available to, or identified by, the client before submitting claims for allowable costs.

4. General Provisions, Article IV, Funding, is revised to add the following new section:

Section 4.03 Program Income. Program Income may be collected and retained by Contractor so long as it is used to provide services specified in the scope of work detailed in this Contract. The use of Program Income shall be reported on the monthly billing vouchers for services provided to Title V eligible clients.

5. General Provisions, Article V, Payment Methods and Restrictions, Section 5.02 Invoice/Billing Submission, is revised to add the following:

d. Contractor's contract amount under this Contract is a ceiling against which it may bill, on a fee-for-service basis, for the provision of allowable services to Title V eligible clients. Only allowable services provided to Title V eligible clients may be billed against this ceiling. The current schedule of allowable services and rates, as well as Title V eligibility requirements, may be modified at the sole discretion of DSHS with thirty (30) days written notice to Contractor. The notice will provide Contractor with an opportunity to terminate this Contract should the modification include a reduction in rates. Contractor shall have thirty (30) days from receipt of this notice to exercise the option for termination. If the Contractor does not exercise the option during the thirty (30) day time period, Contractor shall be deemed to have waived the option.

e. Billing Activity: DSHS shall distribute funds in a way that will maximize the delivery of authorized

services to eligible clients. DSHS will monitor Contractor's billing activity. If utilization is below that projected in Contractor's contract ceiling amount, shown in Section 17.c. Fee for Service/Unit Rate, Contractor's ceiling may be subject to a decrease for the remainder of the Contract period. Contractor may be subject to contract ceiling amount decreases if Contractor's billing activity is less than projected.

f. DSHS may pay for additional services as specified in this Contract if provided by Contractor during the term of this Contract (but not otherwise paid during the Contract term) if it is in the best interest of the State and the DSHS Program to do so, and if funds are available. If Contractor exceeds the ceiling amount of the Contract, Contractor shall continue to bill DSHS for the services provided. DSHS may pay for these additional services if funds become available at a later date.

6. General Provisions, Article VI, Terms and Conditions of Payment, is revised to add the following:

Section 6.04 Payment in Full. Contractor shall accept reimbursement or payment from DSHS and any applicable fees from clients for clinical health services as payment in full for services or goods provided to clients. Contractor shall not seek additional reimbursement or payment for services or goods from clients other than applicable fees for clinical health services.

7. General Provisions, Article X, Access, Inspection and Audit of Records, Section 10.01 Access and Inspection, is revised to add the following:

Contractor shall allow DSHS to conduct on-site quality assurance reviews as deemed necessary by DSHS. Unsatisfactory review findings may result in implementation of General Provisions, Article XV, Breach of Contract and Remedies for Non-Compliance.

8. General Provisions, Article XII, Assurances and Certifications, Section 12.01 Certification, is revised to add the following:

If appropriate, Contractor certifies that neither the Contractor, nor any individual who has a direct or indirect ownership or controlling interest of 5% or more of the Contracting Agency, nor any officer, director, agent or managing employee (e.g. general manager, business manager, administrator, director, or like individual who exercises operational or managerial control over the Contractor or who directly or indirectly conducts the day-to-day business of the Contractor is an entity or individual who:

a. Has been convicted of any offense under 42 U.S.C. § 1320a-7(b)(1)-(3);
b. Has had a civil monetary penalty assessed under 42 U.S.C. § 1320a and/or 42 U.S.C. § 1320a-8; or,
c. Has been excluded from participation in a program under 42 U.S.C. § 1395 et seq.; or under a State health care program.

If the foregoing statement is not true, Contractor shall submit a disclosure/ownership form to DSHS. Contractor shall immediately notify the DSHS in writing, in the event that the foregoing statement changes during the term of this Contract. A false statement regarding Contractor's status will be treated as a material misrepresentation.

9. General Provisions, Article XIII, General Business Operations of Contractor, Section 13.01 Program Site, is revised to add the following:

Contractor shall notify the Contract Development and Support Branch in writing of any clinic site information changes, e.g. changes in contact person, hours of operation, address, Texas Provider Identification (TPI) number, National Provider Identification (NPI) number, the closure, relocation, and/or opening of clinic site(s).

X. Except as provided in this Amendment, all other terms and conditions in the Contract will remain and be in full effect. To the extent of a conflict between the terms of the Contract and the terms of this Amendment, the terms of this Amendment shall prevail.

XI. This Amendment is effective on September 1, 2016.

Department Of State Health Services	Contractor
By:	By:
Title:	Title:
Date:	Date:

TEXAS
Department of State Health Services

PRINT VERSION ADD NOTE CHECK GLOBAL ERRORS

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Parent Information: FCHS-2016-CHS/TV-PRE-00013
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FEE FOR SERVICE / UNIT RATE

Organization Name: Hidalgo County
Contract Number: 2016-003894-01
Proposal ID: FCHS-2017-CHS/TV-PRE-00013
Program ID: CHS/TV-PRENATAL
Procurement ID: GST-2016-Solicitation-00029
Procurement Name: FCHS GOLIVE TITLE V PRENATAL SERIVCES

Item Number	Service	Type	Number to Serve	Rate	Cost
1	Prenatal Medical (includes costs for laboratory and case management) 68 of 500	Clients	689	$209.04	$144,029
2	Prenatal Dental 15 of 500	Clients	0	$0	$0
	0 of 500				
Total					**$144,029**

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Department of State Health Services

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CHILD SUPPORT CERTIFICATION

Organization Name: Hidalgo County
Contract Number: 2016-003894-01

The Texas Family Code §231.006, places certain restriction on child support obligors. Contracts with governmental entities or nonprofit corporations are not subject to §231.006.

The contractor identified above is not a governmental entity or a nonprofit corporation.

The contractor certifies the following is a complete list of the names and social security numbers of either the individual or sole proprietor who is the contractor or each partner, shareholder, or owner with an ownership interest of at least 25% of the contractor/business entity:

Name:	Social Security Number:

Under the Texas Family Code, §231.006, the contractor certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment withheld if this certification is in-accurate. A child support abligor who is more than 30 days delinquent in paying child support or a business entity in which the obligor (who is more than 30 days delinquent) is the sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25% is not eligible to receive the specified grant, loan or payment. The contractor understands that it is the contractor's responsibility to verify whether a child support obligor who is more than 30 days delinquent is the sole proprietor, partner, shareholder or owner with an ownership interest of at least 25%.

Applicable ◉ Non-Applicable

Signature of Authorized Individual Date:

Navigation Links

Status	Page Name	Assigned To	Last Modified By
	Child Support Certification		
	Disclosure of Ownership and Control Interest Statement		
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification		
	Signature Page	Burrell, Deserie - FCHS 8/22/2016 12:45:00 PM	Adams, Jason - FCHS 8/26/2016 11:27:43 AM

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DISCLOSURE OF OWNERSHIP AND CONTROL INTEREST STATEMENT

For definitions, procedures and requirements, refer to the appropriate Statutes or Regulations.
Title V – 42 USC §1397d
Title XVIII – 42CFR 420.200 – 206
Title XIX – 42CFR 455.100 – 106

Organization Name: Hidalgo County
Contract Number: 2016-003894-01

Completion and submission of this form is a condition of participation, certification, or recertification under any of the programs established by titles V, XVIII, and XIX, or as a condition of approval or renewal of a contractor agreement between the disclosing entity and the Department of State Health Services (DSHS) under any of the above-titled programs, a full and accurate disclosure of ownership and financial interest is required. Failure to submit requested information may result in a refusal by DSHS to enter into an agreement or contract with any such institution or in termination of existing agreements.

Answer all questions as of the current date.

Select the title(s) of the program(s) your organization provides services under: *

- [x] Title V
- [ ] Title XVIII
- [ ] Title XIX

Additional Orgnaization Information:

If your organization operates under a DBA, state the name below:

Enter the organization's provider number below:

General Questions:

1. Are there any individuals or organizations having a direct or indirect ownership or control interest of 5 percent or more in the institution, organization,or agency that have been convicted of a criminal offense related to the involvement of such persons, or organizations in any of the programs established by titles XVIII or XIX?

- [ ] Yes
- [x] No

If yes, complete the table below:

Name:
Address:
City:
State:
Zip Code:

2. Are there any directors, officers, agents, or managing employees of the institution, agency or organization who have ever been convicted of a criminal offense related to their involvement in such programs established by titles XVIII or XIX?

- [ ] Yes
- [x] No

If yes, complete the table below:

Name:
Address:
City:

State:

Zip Code:

3. Are any of the individuals, listed in question 1 and/or 2, currently employed by the institution, agency, or organization in a managerial, accounting, auditing, or similar capacity who were employed by the institution's, organization's, or agency's fiscal intermediary or carrier within the previous 12 months? **(Title XVIII providers only)**

Yes * No

If yes, complete the table below:

Name:

Address:

City:

State:

Zip Code:

4. List names, addresses for individuals having direct or indirect ownership or a controlling interest in the entity. If more than one individual is reported and any of these persons are related to each other, this must be reported under the Remarks Section.

Name:

Address:

City:

State:

Zip Code:

Remarks:

5. List organizations having direct or indirect ownership or a controlling interest in the entity.

Organization Name:

Director Name:

EIN Number:

Entity Type: If Other, Specify Type:

Address:

City:

State:

Zip Code:

6. Are any owners of the disclosing entity also owners of other Medicare/Medicaid facilities? (Example: sole proprietor, partnership or members of Board of Directors.)

Yes * No

If yes, list names, addresses of individuals and provider numbers.

Name:	Address:	Provider Number:

7. Has there been a change in ownership or control within the last year?

Yes * No

If yes, enter date of ownership change or control:

8. Do you anticipate any change of ownership or control within the next year?

Yes * No

If yes, enter date of anticipated ownership change or control:

9. Do you anticipate filing for bankruptcy within the year?

Yes * No

If yes, enter date of anticipated date for filing bankruptcy:

10. Is this facility operated by a management company, or leased in whole or part by another organization?

Yes * No

If yes, give date of change in operations:

11. Has there been a change in Administrator, Director of Nursing, or Medical Director within the last year?
Yes * No

12. Is the facility currently affiliated with a chain or previously affiliated with a chain?
Yes * No

If yes, complete the table below:

Name:
Affiliation Status:
Affiliate No.:
EIN Number:
Address:
City:
State:
Zip Code:

13. Have you increased your bed capacity by 10 percent or more or by 10 beds, whichever is greater, within the last 2 years?
Yes * No

If yes, provide the following:

Year of change:
Current Number of Beds:
Prior Number of Beds:

WHOEVER KNOWINGLY AND WILLFULLY MAKES OR CAUSES TO BE MADE A FALSE STATEMENT OR REPRESENTATION OF THIS STATEMENT, MAY BE PROSECUTED UNDER APPLICABLE FEDERAL OR STATE LAWS. IN ADDITION, KNOWINGLY AND WILLFULLY FAILING TO FULLY AND ACCURATELY DISCLOSE THE INFORMATION REQUESTED MAY RESULT IN DENIAL OF A REQUEST TO PARTICIPATE OR WHERE THE ENTITY ALREADY PARTICIPATES, A TERMINATION OF ITS AGREEMENT OR CONTRACT WITH DSHS.

As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and correct to the best of my knowledge.

Signature of Authorized Individual: Date:

Navigation Links

Status	Page Name	Modified By	Last Modified By
	Child Support Certification		
	Disclosure of Ownership and Control Interest Statement		
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification		
X	Signature Page	Burrell, Deserie - FCHS 8/22/2016 12:45:00 PM	Adams, Jason - FCHS 8/26/2016 11:27:43 AM

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FISCAL FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA) CERTIFICATION

The certifications enumerated below represent material facts upon which DSHS relies when reporting information to the federal government required under federal law. If the Department later determines that the Contractor knowingly rendered an erroneous certification, DSHS may pursue all available remedies in accordance with Texas and U.S. law. Signor further agrees that it will provide immediate written notice to DSHS if at any time Signor learns that any of the certifications provided for below were erroneous when submitted or have since become erroneous by reason of changed circumstances. If the Signor cannot certify all of the statements contained in this section, Signor must provide written notice to DSHS detailing which of the below statements it cannot certify and why.

Organization Name	Hidalgo County				
Address	1304 S 25th St				
City	Edinburg	State	Texas	Zip Code (9 digit)	78539
Payee Name	Hidalgo County				
Address	Hidalgo County Treasurer 2810 S Business 281				
City	Edinburg	State	TX	Zip Code (9 digit)	78539-6243
Vendor identification No.		17460007176		MailCode	060
Payee DUNS No.		103110834			

1. Did your organization have a gross income, from all sources, of more than $300,000 in your previous tax year?
   (•) Yes ( ) No

2. Certification Regarding % of Annual Gross from Federal Awards.
   Did your organization receive 80% or more of its annual gross revenue from federal awards during the preceding fiscal year?
   ( ) Yes (•) No

3. Certification Regarding Amount of Annual Gross from Federal Awards.
   Did your organization receive $25 million or more in annual gross revenues from federal awards in the preceding fiscal year?
   (•) Yes ( ) No

Identify contact persons for FFATA Correspondence.

FFATA Contact Person #1

Name	Ramon Garcia
Email	ramon.garcia@co.hidalgo.tx.us
Telephone	(956) 318-2600

FFATA Contact Person #2

Name	Ray Eufracio
Email	ray.eufracio@auditor.co.hidalgo.tx.us
Telephone	(956) 318-2511

As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and

correct to the best of my knowledge.

E-Signature Date

Navigation Links

	Child Support Certification		
	Disclosure of Ownership and Control Interest Statement		
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification		
	Signature Page	Burrell, Deserie - FCHS 8/22/2016 12:45:00 PM	Adams, Jason - FCHS 8/26/2016 11:27:43 AM

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Mike Escaname

From: Bourda,Michael (HHSC/DSHS) <Michael.Bourda@hhsc.state.tx.us>
Sent: Thursday, September 08, 2016 1:25 PM
To: Mike Escaname
Subject: RE: Request - Funding Source for Title V Fee-For-Service PRENATAL - Hidalgo County

The Title V Prenatal funds are State dollars.

From: Mike Escaname [mailto:miguel.escaname@hchd.org]
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For financial reporting purposes, I'd appreciate if you can provide the funding source for the additional funds that have been added in the amount of $144,029.00.

If federal funds, please provide the CFDA #.

Thanks,

Mike Escaname
Budget Manager
Hidalgo County Health & Human Services Department
1304 S. 25 Ave
Edinburg, TX 78542-7205
Main Line (956) 383-6221
Direct Line (956) 292-7000 ext. 7210

Please note My email address has changed. Please be sure to update your contact information with my new email address.

DATE: September 13, 2016

DEPARTMENT HEAD: Eduardo Olivarez, Chief Administrative Officer

DEPARTMENT NAME: Hidalgo County Health & Human Services Department

ACCOUNT NUMBER: 6-1293-441-10-340-052-6-XXX Prenatal

SUBJECT: Budget Amendments (Increases) in Accordance with Local Government Code, Chapter 111, Subchapter C

Honorable Commissioner's Court of Hidalgo County:

I would like to request the following amendments (increase) to my department budget in accordance with Local Government Code, Chapter 111, Subchapter C.

INCREASE OBJECT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT -
Personnel		
6-1293-441-10-340-052-6-113	Prenatal - Reg F/T Employees	$ 38,300.00
Fringes		
6-1293-441-10-340-052-6-211	Prenatal - Health Insurance	$ 9,600.00
6-1293-441-10-340-052-6-212	Prenatal - Life Insurance	$ 60.00
6-1293-441-10-340-052-6-220	Prenatal - FICA	$ 2,950.00
6-1293-441-10-340-052-6-230	Prenatal - Retirement	$ 4,400.00
6-1293-441-10-340-052-6-250	Prenatal - Unemployment Comp	$ 250.00
6-1293-441-10-340-052-6-260	Prenatal - Workers Comp	$ 400.00
Travel		
6-1293-441-10-340-052-6-581	Prenatal - In-County Travel	$ 2,000.00
Supplies		
6-1293-441-10-340-052-6-610	Prenatal - General Supplies	$ 11,069.00
Other		
6-1293-441-10-340-052-6-339	Prenatal - Other Professional Services	$ 75,000.00
		$ -
	TOTAL APPROPRIATION	$ 144,029.00
6-1293-334-10-340-052-6-000	Prenatal - Grant Revenue	$ 144,029.00
	TOTAL APPROPRIATION	$ 144,029.00

REASON: To appropriate the grant allocation for the Prenatal FY 17 program

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONER'S C(DATE ATTEST CO. CLERK

PRENATAL FY 17

Salary / Fringes Salary Schedule
09/01/2016 - 08/31/2017
For Budget Purposes Only

					Hourly		Work Hours	Work	09/01/16 to 08/31/17			Distribution				Insurance	
Slot #	Position Title	2016	General Fund Salary	Prenatal Salary	Hourly Rate	Hourly Rate + 0% COLA	# of Hours 09/01/2016 to 12/31/16	# of Hours 01/01/17 to 08/31/17	Projected Sal 09/01/2016 to 12/31/16	Projected Sal 01/01/17 to 08/31/17	Projected Salaries	340-003	%	340-052	%	Health Ins.	Life Ins.
0003	Clinic Aide II	25,462.00	5,733.00	19,729.00	9.49	9.49	696	1,392	6,601.63	13,203.25	19,804.88	5,733.00	0.23	19,804.88	0.77	4,717.23	29.10
G004	Clerk II	22,972.00	4,595.00	18,377.00	8.84	8.84	696	1,392	6,149.23	12,298.45	18,447.68	4,595.00	0.20	18,447.68	0.80	4,870.24	30.05
																9,587.47	59.15

Total Gross Salary - >	**38,252.56**
Health Insurance - ($6,256.00 / yr * % of pay from grant)	**9,587.47**
Life Insurance - ($37.56 / Yr / person prorated by % of pay from grant)	**59.15**
FICA - (7.65% * Gross Salary)	**2,926.32**
Retirement - (11.25% * Gross Salary)	**4,303.41**
Unemployment - (.60% * Gross Salary)	**229.52**
Worker's Comp - (.94% * Gross Salary)	**359.57**
	55,718.01

Notes

1 There are 2,088 work hours during the grant period of 08/31/2015 through 08/31/2016.
2 Health Insurance is $6,256.00 / yr times the percentage of pay from the grant. ($514.00 * 4 months + $525.00 * 8 months) (Prorated based on % of grant funded portion)
3 0% COLA budgeted from 01/01/17.
4 Fringe rates - Current rates as of 09/08/16.

Prepared by:
Health Human Services Dept.
09/08/2016

AI-56281 **Health & Human Services Dept.** **8. B.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Eddie Olivarez, HEALTH & HUMAN SERVICES DEPT.

Submitted By: Mike Escaname, HEALTH & HUMAN SERVICES DEPT.

Department: HEALTH & HUMAN SERVICES DEPT.

Information

CAPTION

1. Requesting approval to accept the DSHS FY 17 Title V Fee-For-Service Child Health grant contract amendment #2016-003931-01. The purpose of this amendment is to amend certain contractual language, to add the FY 17 award allocation of $30,535.00 and to extend the contract term to August 31, 2017.
2. Requesting approval for County Judge to e-sign the Child Health grant contract Amendment and related documents.
3. Requesting approval of the Certification of Revenue in the amount of $30,535.00.
4. Requesting approval of the budget appropriation in the amount of $30,535.00.
5. Requesting approval of the salary schedule.

BACKGROUND

07/05/16 - AI-55159 - Approval to submit grant renewal application.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1293-441-10-340-051-6-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

No local match required.

Attachments

Grant Contract Amendment
Budget Appropriation
Salary Budget
Child Health FY 17 Funding Source
COR

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 01:25 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Mike Escaname Started On: 09/08/2016 11:43 AM
Final Approval Date: 09/09/2016

DEPARTMENT OF STATE HEALTH SERVICES

AMENDMENT #: 01

The Department of State Health Services (DSHS) and Hidalgo County (Contractor) agree to amend Contract ID# 2016-003931-00 (Contract), which was effective on September 1, 2015. This Contract has not been amended prior to this Amendment. This Amendment will be denominated as Contract No. 2016-003931-01.

I. The Parties agree to amend Section 2. Total Amount, to increase the total amount of the Contract to SIXTY-THREE THOUSAND THREE HUNDRED SIXTY-EIGHT DOLLARS ($63,368) of which THIRTY THOUSAND FIVE HUNDRED THIRTY-FIVE DOLLARS ($30,535) is allocated toward the contract period of September 1, 2016 through August 31, 2017.

II. The Parties agree to amend Section 4. Term of the Contract, to extend the end of the Contract term to August 31, 2017.

III. The Parties agree to amend the fourth paragraph in Section 7. Statement of Work, to add the following document to the list of documents that are incorporated by reference and made a part of the Contract: DSHS FY17 Title V Fee-for-Service Child Health and Child Dental Renewal Application.

IV. The Parties agree to amend the BILLING INSTRUCTIONS section of Section 7. Statement of Work, to add the following paragraphs:

Contractor has 45 days from August 31, 2017 to enter data into IBIS system for services provided September 1, 2016 to August 31, 2017. Contractor will not be reimbursed for services entered into IBIS after the 45 day deadline.

Contractor shall bill DSHS on a monthly basis for allowable services provided to Title V eligible clients. Bills for all allowable services shall be submitted as aggregate activity reports with a DSHS Monthly Reimbursement Request and shall not refer to or identify individual clients. Contractor shall bill within thirty (30) days after the end of the month in which services were provided or within sixty (60) days in cases of potentially Medicaid eligible individuals who are denied eligibility by the Health and Human Services Commission. All bills shall be submitted within forty-five (45) days of the end of the Contract term.

In billing DSHS, Contractor shall certify that all billed services have been provided only to individuals who have been determined to be eligible for Title V services. DSHS will pay Contractor for all acceptable vouchers submitted up to Contractor's contract ceiling amount. Billing vouchers submitted outside of the timeframes indicated above shall be subject to disallowance.

V. The Parties agree to add the following to the Fee for Service/Unit Rate document for the contract period of September 1, 2016 to August 31, 2017:

Item Number	Service	Type	Number to Serve	Rate	Cost
1	Child Health (include costs for laboratory and case management)	Clients	376	$81.21	$30,535
2	Child Dental	Clients	0	$0	$0
Total	$30,535				

VI. The Parties agree to amend Section 9. Performance Measures, to add the Target Number of unduplicated clients that Contractor shall provide child health and/or dental services to, for the contract

period of September 1, 2016 to August 31, 2017, which is three hundred seventy-six (376) unduplicated clients.

VII. The Parties agree to amend Section 11. Renewals Remaining, to reflect that there is one (1) renewal remaining under the Contract.

VIII. The Parties agree to amend Section 15. Programmatic Reporting Requirements, to extend the date in the Period End column to 08/31/2017, for all reports.

IX. The Parties agree to delete Section 16. Special Provisions, in its entirety and replace it with the following:

16. Special Provisions

For purposes of this Contract only, the following provisions shall apply:

1. General Provisions, Article II Compliance and Reporting, Section 2.05 Reporting, is revised to include the following:

Contractor shall report to DSHS using established reports as directed by the Policies and Procedures Manual for Title V Maternal and Child Fee for Service for Child Health, Dental and Prenatal, and other data and/or reports deemed necessary by DSHS, upon reasonable notice to Contractor.

2. General Provisions, Article II, Compliance and Reporting, is revised to add the following new section:

Section 2.13 Eligibility. All individuals considered for Title V eligibility must be screened and determined eligible using a DSHS or Title V program-approved screening process as updated in the spring of each year when federal poverty levels and eligibility determination forms are revised.

3. General Provisions, Article III, Services, is revised to add the following new section:

Section 3.06 Co-pay. Contractor may assess a co-pay from clients who receive services under this Contract. A co-pay shall not be assessed from such clients if their family income is at or below 100% of the most recently defined federal poverty level. A co-pay assessment shall not exceed 25% of the authorized and approved reimbursement amount for allowed services. A client shall not be denied services due to inability to pay. Contractor shall make reasonable efforts to investigate and apply for all other sources of third party funding available to, or identified by, the client before submitting claims for allowable costs.

4. General Provisions, Article IV, Funding, is revised to add the following new section:

Section 4.03 Program Income. Program Income may be collected and retained by Contractor so long as it is used to provide services specified in the scope of work detailed in this Contract. The use of Program Income shall be reported on the monthly billing vouchers for services provided to Title V eligible clients.

5. General Provisions, Article V, Payment Methods and Restrictions, Section 5.02 Invoice/Billing Submission, is revised to add the following:

d. Contractor's contract amount under this Contract is a ceiling against which it may bill, on a fee-for-service basis, for the provision of allowable services to Title V eligible clients. Only allowable services provided to Title V eligible clients may be billed against this ceiling. The current schedule of

allowable services and rates, as well as Title V eligibility requirements, may be modified at the sole discretion of DSHS with thirty (30) days written notice to Contractor. The notice will provide Contractor with an opportunity to terminate this Contract should the modification include a reduction in rates. Contractor shall have thirty (30) days from receipt of this notice to exercise the option for termination. If the Contractor does not exercise the option during the thirty (30) day time period, Contractor shall be deemed to have waived the option.

e. Billing Activity: DSHS shall distribute funds in a way that will maximize the delivery of authorized services to eligible clients. DSHS will monitor Contractor's billing activity. If utilization is below that projected in Contractor's contract ceiling amount, shown in Section 17.c. Fee for Service/Unit Rate, Contractor's ceiling may be subject to a decrease for the remainder of the Contract period. Contractor may be subject to contract ceiling amount decreases if Contractor's billing activity is less than projected.

f. DSHS may pay for additional services as specified in this Contract if provided by Contractor during the term of this Contract (but not otherwise paid during the Contract term) if it is in the best interest of the State and the DSHS Program to do so, and if funds are available. If Contractor exceeds the ceiling amount of the Contract, Contractor shall continue to bill DSHS for the services provided. DSHS may pay for these additional services if funds become available at a later date.

6. General Provisions, Article VI, Terms and Conditions of Payment, is revised to add the following:

Section 6.04 Payment in Full. Contractor shall accept reimbursement or payment from DSHS and any applicable fees from clients for clinical health services as payment in full for services or goods provided to clients. Contractor shall not seek additional reimbursement or payment for services or goods from clients other than applicable fees for clinical health services.

7. General Provisions, Article X, Access, Inspection and Audit of Records, Section 10.01 Access and Inspection, is revised to add the following:

Contractor shall allow DSHS to conduct on-site quality assurance reviews as deemed necessary by DSHS. Unsatisfactory review findings may result in implementation of General Provisions, Article XV, Breach of Contract and Remedies for Non-Compliance.

8. General Provisions, Article XII, Assurances and Certifications, Section 12.01 Certification, is revised to add the following:

If appropriate, Contractor certifies that neither the Contractor, nor any individual who has a direct or indirect ownership or controlling interest of 5% or more of the Contracting Agency, nor any officer, director, agent or managing employee (e.g. general manager, business manager, administrator, director, or like individual who exercises operational or managerial control over the Contractor or who directly or indirectly conducts the day-to-day business of the Contractor is an entity or individual who:

a. Has been convicted of any offense under 42 U.S.C. § 1320a-7(b)(1)-(3);
b. Has had a civil monetary penalty assessed under 42 U.S.C. § 1320a and/or 42 U.S.C. § 1320a-8; or,
c. Has been excluded from participation in a program under 42 U.S.C. § 1395 et seq.; or under a State health care program.

If the foregoing statement is not true, Contractor shall submit a disclosure/ownership form to DSHS. Contractor shall immediately notify the DSHS in writing, in the event that the foregoing statement changes during the term of this Contract. A false statement regarding Contractor's status will be treated as a material misrepresentation.

9. General Provisions, Article XIII, General Business Operations of Contractor, Section 13.01 Program Site, is revised to add the following:

Contractor shall notify the Contract Development and Support Branch in writing of any clinic site information changes, e.g. changes in contact person, hours of operation, address, Texas Provider Identification (TPI) number, National Provider Identification (NPI) number, the closure, relocation, and/or opening of clinic site(s).

X. Except as provided in this Amendment, all other terms and conditions in the Contract will remain and be in full effect. To the extent of a conflict between the terms of the Contract and the terms of this Amendment, the terms of this Amendment shall prevail.

XI. This Amendment is effective on September 1, 2016.

By signing this Amendment, the undersigned certify that they have the authority to bind their respective party to this Amendment's terms and conditions.

Department Of State Health Services	**Contractor**
By:	By:
Title:	Title:
Date:	Date:

FEE FOR SERVICE / UNIT RATE

Organization Name: Hidalgo County
Contract Number: 2016-003931-01
Proposal ID: FCHS-2017-CHS/TV-CHI-00024
Program ID: CHS/TV-CHILDHLTH
Procurement ID: GST-2016-Solicitation-00030
Procurement Name: FCHS GOLIVE TITLE V CHILD HLTH SERVICES

Item Number	Service	Type	Number to Serve	Rate	Cost
1	Child Health (include costs for laboratory and case management) 63 of 500	Clients	376	$81.21	$30,535
2	Child Dental 12 of 500	Clients	0	$0	$0
	0 of 500				
Total					**$30,535**

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TEXAS Department of State Health Services

CHILD SUPPORT CERTIFICATION

Organization Name: Hidalgo County
Contract Number: 2016-003931-01

The Texas Family Code §231.006, places certain restriction on child support obligors. Contracts with governmental entities or nonprofit corporations are not subject to §231.006.

The contractor identified above is not a governmental entity or a nonprofit corporation.

The contractor certifies the following is a complete list of the names and social security numbers of either the individual or sole proprietor who is the contractor or each partner, shareholder, or owner with an ownership interest of at least 25% of the contractor/business entity:

Name:	Social Security Number:

Under the Texas Family Code, §231.006, the contractor certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment withheld if this certification is in-accurate. A child support abligor who is more than 30 days delinquent in paying child support or a business entity in which the obligor (who is more than 30 days delinquent) is the sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25% is not eligible to receive the specified grant, loan or payment. The contractor understands that it is the contractor's responsibility to verify whether a child support obligor who is more than 30 days delinquent is the sole proprietor, partner, shareholder or owner with an ownership interest of at least 25%.

○ Applicable ◉ Non-Applicable

Signature of Authorized Individual Date:

Navigation Links

Status	Page Name	Note	Created By	Last Modified By
	Child Support Certification			
	Disclosure of Ownership and Control Interest Statement			
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification			
	Signature Page		Burrell, Deserie - FCHS 8/22/2016 7:16:12 AM	

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TEXAS Department of State Health Services

DISCLOSURE OF OWNERSHIP AND CONTROL INTEREST STATEMENT

For definitions, procedures and requirements, refer to the appropriate Statutes or Regulations:
Title V – 42 USC §1397d
Title XVIII – 42CFR 420.200 – 206
Title XIX – 42CFR 455.100 – 106

Organization Name: Hidalgo County
Contract Number: 2016-003931-01

Completion and submission of this form is a condition of participation, certification, or recertification under any of the programs established by titles V, XVIII, and XIX, or as a condition of approval or renewal of a contractor agreement between the disclosing entity and the Department of State Health Services (DSHS) under any of the above-titled programs, a full and accurate disclosure of ownership and financial interest is required. Failure to submit requested information may result in a refusal by DSHS to enter into an agreement or contract with any such institution or in termination of existing agreements.

Answer all questions as of the current date.

Select the title(s) of the program(s) your organization provides services under: *

- [x] Title V
- [ ] Title XVIII
- [ ] Title XIX

Additional Orgnaization Information:

If your organization operates under a DBA, state the name below:

Enter the organization's provider number below:

General Questions:

1. Are there any individuals or organizations having a direct or indirect ownership or control interest of 5 percent or more in the institution, organization,or agency that have been convicted of a criminal offense related to the involvement of such persons, or organizations in any of the programs established by titles XVIII or XIX?

( ) Yes (•) No

If yes, complete the table below:

Name:
Address:
City:
State:
Zip Code:

2. Are there any directors, officers, agents, or managing employees of the institution, agency or organization who have ever been convicted of a criminal offense related to their involvement in such programs established by titles XVIII or XIX?

( ) Yes (•) No

If yes, complete the table below:

Name:
Address:
City:

State:
Zip Code:

3. Are any of the individuals, listed in question 1 and/or 2, currently employed by the institution, agency, or organization in a managerial, accounting, auditing, or similar capacity who were employed by the institution's, organization's, or agency's fiscal intermediary or carrier within the previous 12 months? **(Title XVIII providers only)**

Yes No

If yes, complete the table below:
Name:
Address:
City:
State:
Zip Code:

4. List names, addresses for individuals having direct or indirect ownership or a controlling interest in the entity. If more than one individual is reported and any of these persons are related to each other, this must be reported under the Remarks Section.

Name:
Address:
City:
State:
Zip Code:
Remarks:

5. List organizations having direct or indirect ownership or a controlling interest in the entity.

Organization Name:
Director Name:
EIN Number:
Entity Type: If Other, Specify Type:
Address:
City:
State:
Zip Code:

6. Are any owners of the disclosing entity also owners of other Medicare/Medicaid facilities? (Example: sole proprietor, partnership or members of Board of Directors.)

Yes No

If yes, list names, addresses of individuals and provider numbers.

Name:	Address:	Provider Number:

7. Has there been a change in ownership or control within the last year?

Yes No

If yes, enter date of ownership change or control:

8. Do you anticipate any change of ownership or control within the next year?

Yes No

If yes, enter date of anticipated ownership change or control:

9. Do you anticipate filing for bankruptcy within the year?

Yes No

If yes, enter date of anticipated date for filing bankruptcy:

10. Is this facility operated by a management company, or leased in whole or part by another organization?

Yes No

If yes, give date of change in operations:

11. Has there been a change in Administrator, Director of Nursing, or Medical Director within the last year?
Yes No

12. Is the facility currently affiliated with a chain or previously affiliated with a chain?
Yes No

If yes, complete the table below:

Name:
Affiliation Status:
Affiliate No.:
EIN Number:
Address:
City:
State:
Zip Code:

13. Have you increased your bed capacity by 10 percent or more or by 10 beds, whichever is greater, within the last 2 years?
Yes No

If yes, provide the following:

Year of change:
Current Number of Beds:
Prior Number of Beds:

WHOEVER KNOWINGLY AND WILLFULLY MAKES OR CAUSES TO BE MADE A FALSE STATEMENT OR REPRESENTATION OF THIS STATEMENT, MAY BE PROSECUTED UNDER APPLICABLE FEDERAL OR STATE LAWS. IN ADDITION, KNOWINGLY AND WILLFULLY FAILING TO FULLY AND ACCURATELY DISCLOSE THE INFORMATION REQUESTED MAY RESULT IN DENIAL OF A REQUEST TO PARTICIPATE OR WHERE THE ENTITY ALREADY PARTICIPATES, A TERMINATION OF ITS AGREEMENT OR CONTRACT WITH DSHS.

As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and correct to the best of my knowledge.

Signature of Authorized Individual: Date:

Navigation Links

Status	Page Name	Note	Created By	Last Modified By
	Child Support Certification			
	Disclosure of Ownership and Control Interest Statement			
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification			
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TEXAS Department of State Health Services

FISCAL FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA) CERTIFICATION

The certifications enumerated below represent material facts upon which DSHS relies when reporting information to the federal government required under federal law. If the Department later determines that the Contractor knowingly rendered an erroneous certification, DSHS may pursue all available remedies in accordance with Texas and U.S. law. Signor further agrees that it will provide immediate written notice to DSHS if at any time Signor learns that any of the certifications provided for below were erroneous when submitted or have since become erroneous by reason of changed circumstances. If the Signor cannot certify all of the statements contained in this section, Signor must provide written notice to DSHS detailing which of the below statements it cannot certify and why.

Organization Name	Hidalgo County				
Address	1304 S 25th St				
City	Edinburg	State	Texas	Zip Code (9 digit)	78539
Payee Name	Hidalgo County				
Address	Hidalgo County Treasurer 2810 S Business 281				
City	Edinburg	State	TX	Zip Code (9 digit)	78539-6243
Vendor identification No.		17460007176		MailCode	060
Payee DUNS No. *		103110834			

1. Did your organization have a gross income, from all sources, of more than $300,000 in your previous tax year? *

(•) Yes ( ) No

2. Certification Regarding % of Annual Gross from Federal Awards.

Did your organization receive 80% or more of its annual gross revenue from federal awards during the preceding fiscal year?

( ) Yes (•) No

3. Certification Regarding Amount of Annual Gross from Federal Awards.

Did your organization receive $25 million or more in annual gross revenues from federal awards in the preceding fiscal year?

(•) Yes ( ) No

Identify contact persons for FFATA Correspondence. *

FFATA Contact Person #1

Name*	Ramon Garcia
Email*	ramon.garcia@co.hidalgo.tx.us
Telephone*	(956) 318-2600

FFATA Contact Person #2

Name*	Ray Eufracio
Email*	ray.eufracio@auditor.co.hidalgo.tx.us
Telephone*	(956) 318-2511

☐ As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and

correct to the best of my knowledge.

E-Signature Date

Navigation Links

Status	Page Name	Note	Created By	Last Modified By
	Child Support Certification			
	Disclosure of Ownership and Control Interest Statement			
	Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification			
	Signature Page		Burrell, Deserie - FCHS 8/22/2016 7:16:12 AM	

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DATE: September 13, 2016

DEPARTMENT HEAD: Eduardo Olivarez, Chief Administrative Officer

DEPARTMENT NAME: Hidalgo County Health & Human Services Department

ACCOUNT NUMBER: 6-1293-441-10-340-051-6-XXX Child Health

SUBJECT: Budget Amendments (Increases) in Accordance with Local Government Code, Chapter 111, Subchapter C

Honorable Commissioner's Court of Hidalgo County:

I would like to request the following amendments (increase) to my department budget in accordance with Local Government Code, Chapter 111, Subchapter C.

INCREASE OBJECT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT -
Personnel		
6-1293-441-10-340-051-6-113	Child Health - Reg F/T Employees	$ 19,373.00
Fringes		
6-1293-441-10-340-051-6-211	Child Health - Health Insurance	$ 5,256.00
6-1293-441-10-340-051-6-212	Child Health - Life Insurance	$ 35.00
6-1293-441-10-340-051-6-220	Child Health - FICA	$ 1,500.00
6-1293-441-10-340-051-6-230	Child Health - Retirement	$ 2,200.00
6-1293-441-10-340-051-6-250	Child Health - Unemployment Comp	$ 120.00
6-1293-441-10-340-051-6-260	Child Health - Workers Comp	$ 200.00
Travel		
Other		
6-1293-441-10-340-051-6-339	Child Health - Other Professional Services	$ 1,851.00
	TOTAL APPROPRIATION	$ 30,535.00
6-1293-331-12-340-051-6-000	Child Health - Grant Revenue	$ 30,535.00
	TOTAL APPROPRIATION	$ 30,535.00

REASON: To appropriate the Child Health program allocation for FY 17

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONER'S C(DATE ATTEST CO. CLERK

Child Health FY 17

Salary / Fringes Salary Schedule
09/01/2016 - 08/31/2017
For Budget Purposes Only

					Hourly		Work Hours	Work	09/01/16 to 08/31/17			Distribution				Insurance	
Slot #	**Position Title**	**2016**	**General Fund Salary**	**Child Health Salary**	**Hourly Rate**	**Hourly Rate + 0% COLA**	**# of Hours 09/01/16 to 12/31/16**	**# of Hours 01/01/17 to 08/31/17**	**Projected Sal 09/01/16 to 12/31/16**	**Projected Sal 01/01/17 to 08/31/17**	**Projected Salaries**	**340-003**	**%**	**340-051**	**%**	**Health Ins.**	**Life Ins.**
G002	Clerk II	22,972.00	3,675.00	19,297.00	9.28	9.28	696	1,392	6,457.07	12,914.15	19,371.22	3,675.00	0.16	19,371.22	0.84	5,255.18	31.55
							Total Gross Salary - >							**19,371.22**		**5,255.18**	**31.55**
							Health Insurance - ($6,256.00 / yr * % of pay from grant)							**5,255.18**			
							Life Insurance - ($37.56 / Yr / person prorated by % of pay from grant)							**31.55**			
							FICA - (7.65% * Gross Salary)							**1,481.90**			
							Retirement - (11.25% * Gross Salary)							**2,179.26**			
							Unemployment - (.60% * Gross Salary)							**116.23**			
							Worker's Comp - (.94% * Gross Salary)							**182.09**			
														28,617.43			

Notes:

1 There are 2,088 work hours during the grant period of 09/01/2015 through 08/31/2016.
2 Health Insurance is $6,256.00 / yr times the percentage of pay from the grant. ($514.00 * 4 months + $525.00 * 8 months) (Prorated based on % of grant funded portion)
3 0% COLA budgeted from 01/01/17.
4 Fringe rates current as of 09/08/16.

Prepared by:
Health Human Services Dept.
09/08/16

Prepared by:
Health Human Services Dept.
09/08/16

Mike Escaname

From: Bourda,Michael (HHSC/DSHS) <Michael.Bourda@hhsc.state.tx.us>
Sent: Thursday, September 08, 2016 1:12 PM
To: Mike Escaname
Cc: Torres,Leroy (DSHS)
Subject: RE: Request - Funding Source for Title V Fee-For-Service Child Health - Hidalgo County

Mike,

The CDFA # is 94.944.000

This is for only Child Health and Dental.

From: Mike Escaname [mailto:miguel.escaname@hchd.org]
Sent: Thursday, September 08, 2016 11:09 AM
To: Bourda,Michael (HHSC/DSHS)
Cc: Burrell,Deserie (DSHS)
Subject: Request - Funding Source for Title V Fee-For-Service Child Health - Hidalgo County

Hello Michael,

We are in receipt of our Title V Fee-for-Service Child Health contract Amendment (attached).

For financial reporting purposes, I'd appreciate if you can provide the funding source for the additional funds that have been added in the amount of $30,535.00.

If federal funds, please provide the CFDA #.

Thanks,

Mike Escaname
Budget Manager
Hidalgo County Health & Human Services Department
1304 S. 25 Ave
Edinburg, TX 78542-7205
Main Line (956) 383-6221
Direct Line (956) 292-7000 ext. 7210

Please note My email address has changed. Please be sure to update your contact information with my new email address.

COUNTY of HIDALGO

EDINBURG, TEXAS 78539

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

September 9, 2016

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioner's court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the receipt of an award from the Texas Department of State Health Services. These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$ 30,535.00	Awards No. 2016-003931-01 CHS/TV-CHILDHLTH CHS-TitleV-Child Health Services

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

HIDALGO COUNTY DISTRICT JUDGES

LUIS M. SINGLETERRY JUDGE, 92ND D.C. | RODOLFO DELGADO JUDGE, 93RD D.C. | J. R. "BOBBY" FLORES JUDGE, 139TH D.C. | ROSE GUERRA REYNA JUDGE, 206TH D.C. | JUAN R. PARTIDA JUDGE, 275TH D.C. | MARIO E. RAMIREZ, JR. JUDGE, 332ND D.C. | NOE GONZALEZ JUDGE, 370TH D.C. OVERSEER | LETICIA LOPEZ JUDGE, 389TH D.C. | AIDA SALINAS FLORES JUDGE, 398TH D.C. | ISRAEL RAMON, JR. JUDGE, 430TH D.C. | JESSE CONTRERAS JUDGE, 449TH D.C.

AI-56281 **Health & Human Services Dept.** **19. 0.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Eddie Olivarez, HEALTH & HUMAN SERVICES DEPT.

Submitted By: Mike Escaname, HEALTH & HUMAN SERVICES DEPT.

Department: HEALTH & HUMAN SERVICES DEPT.

Information

CAPTION

1. Requesting approval to accept the DSHS FY 17 Title V Fee-For-Service Child Health grant contract amendment #2016-003931-01. The purpose of this amendment is to amend certain contractual language, to add the FY 17 award allocation of $30,535.00 and to extend the contract term to August 31, 2017.
2. Requesting approval for County Judge to e-sign the Child Health grant contract Amendment and related documents.
3. Requesting approval of the Certification of Revenue in the amount of $30,535.00.
4. Requesting approval of the budget appropriation in the amount of $30,535.00.
5. Requesting approval of the salary schedule.

BACKGROUND

07/05/16 - AI-55159 - Approval to submit grant renewal application.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1293-441-10-340-051-6-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

No local match required.

Attachments

Grant Contract Amendment

Budget Appropriation

Salary Budget

Child Health FY 17 Funding Source

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 01:25 PM
Final Approval		
Form Started By: Mike Escaname		Started On: 09/08/2016 11:43 AM

Minerva Diaz

From: Mike Escaname [miguel.escaname@hchd.org]
Sent: Thursday, September 08, 2016 3:07 PM
To: minerva.diaz@auditor.co.hidalgo.tx.us
Subject: Request for Certification of Revenue - Child Health FY 17 - $30,535.00
Attachments: 2016-003931-01 Child Health FY 17.pdf

Minerva,

I'd appreciate if you can arrange for a Certification of Revenue in the amount of $30,535.00. We are presenting AI-56281 to CC to accept our Child Health FY 17 Amendment.

Thanks,

Mike Escaname
Budget Manager
Hidalgo County Health & Human Services Department
1304 S. 25 Ave
Edinburg, TX 78542-7205
Main Line (956) 383-6221
Direct Line (956) 292-7000 ext. 7210

DEPARTMENT OF STATE HEALTH SERVICES

AMENDMENT #: 01

The Department of State Health Services (DSHS) and Hidalgo County (Contractor) agree to amend Contract ID# 2016-003931-00 (Contract), which was ~~effective on September 1, 2015~~. This Contract has not been amended prior to this Amendment. This Amendment will be denominated as Contract No. 2016-003931-01.

I. The Parties agree to amend Section 2. Total Amount, to ~~increase~~ the total amount of the Contract to ~~SIXTY-THREE THOUSAND THREE HUNDRED SIXTY-EIGHT DOLLARS ($63,368)~~ of which THIRTY THOUSAND FIVE HUNDRED THIRTY-FIVE DOLLARS ~~($30,535)~~ is allocated toward the contract period of ~~September 1, 2016 through August 31, 2017~~.

II. The Parties agree to amend Section 4. Term of the Contract, to extend the end of the Contract term to August 31, 2017.

III. The Parties agree to amend the fourth paragraph in Section 7. Statement of Work, to add the following document to the list of documents that are incorporated by reference and made a part of the Contract: DSHS FY17 Title V Fee-for-Service Child Health and Child Dental Renewal Application.

IV. The Parties agree to amend the BILLING INSTRUCTIONS section of Section 7. Statement of Work, to add the following paragraphs:

Contractor has 45 days from August 31, 2017 to enter data into IBIS system for services provided September 1, 2016 to August 31, 2017. Contractor will not be reimbursed for services entered into IBIS after the 45 day deadline.

Contractor shall bill DSHS on a monthly basis for allowable services provided to Title V eligible clients. Bills for all allowable services shall be submitted as aggregate activity reports with a DSHS Monthly Reimbursement Request and shall not refer to or identify individual clients. Contractor shall bill within thirty (30) days after the end of the month in which services were provided or within sixty (60) days in cases of potentially Medicaid eligible individuals who are denied eligibility by the Health and Human Services Commission. All bills shall be submitted within forty-five (45) days of the end of the Contract term.

In billing DSHS, Contractor shall certify that all billed services have been provided only to individuals who have been determined to be eligible for Title V services. DSHS will pay Contractor for all acceptable vouchers submitted up to Contractor's contract ceiling amount. Billing vouchers submitted outside of the timeframes indicated above shall be subject to disallowance.

V. The Parties agree to add the following to the Fee for Service/Unit Rate document for the contract period of September 1, 2016 to August 31, 2017.

Item Number	Service	Type	Number to Serve	Rate	Cost
1	Child Health (include costs for laboratory and case management)	Clients	376	$81.21	$30,535
2	Child Dental	Clients	0	$0	$0
Total	$30,535				

VI. The Parties agree to amend Section 9. Performance Measures, to add the Target Number of unduplicated clients that Contractor shall provide child health and/or dental services to, for the contract

period of September 1, 2016 to August 31, 2017, which is three hundred seventy-six (376) unduplicated clients.

VII. The Parties agree to amend Section 11. Renewals Remaining, to reflect that there is one (1) renewal remaining under the Contract.

VIII. The Parties agree to amend Section 15. Programmatic Reporting Requirements, to extend the date in the Period End column to 08/31/2017, for all reports.

IX. The Parties agree to delete Section 16. Special Provisions, in its entirety and replace it with the following:

16. Special Provisions

For purposes of this Contract only, the following provisions shall apply:

1. General Provisions, Article II Compliance and Reporting, Section 2.05 Reporting, is revised to include the following:

Contractor shall report to DSHS using established reports as directed by the Policies and Procedures Manual for Title V Maternal and Child Fee for Service for Child Health, Dental and Prenatal, and other data and/or reports deemed necessary by DSHS, upon reasonable notice to Contractor.

2. General Provisions, Article II, Compliance and Reporting, is revised to add the following new section:

Section 2.13 Eligibility. All individuals considered for Title V eligibility must be screened and determined eligible using a DSHS or Title V program-approved screening process as updated in the spring of each year when federal poverty levels and eligibility determination forms are revised.

3. General Provisions, Article III, Services, is revised to add the following new section:

Section 3.06 Co-pay. Contractor may assess a co-pay from clients who receive services under this Contract. A co-pay shall not be assessed from such clients if their family income is at or below 100% of the most recently defined federal poverty level. A co-pay assessment shall not exceed 25% of the authorized and approved reimbursement amount for allowed services. A client shall not be denied services due to inability to pay. Contractor shall make reasonable efforts to investigate and apply for all other sources of third party funding available to, or identified by, the client before submitting claims for allowable costs.

4. General Provisions, Article IV, Funding, is revised to add the following new section:

Section 4.03 Program Income. Program Income may be collected and retained by Contractor so long as it is used to provide services specified in the scope of work detailed in this Contract. The use of Program Income shall be reported on the monthly billing vouchers for services provided to Title V eligible clients.

5. General Provisions, Article V, Payment Methods and Restrictions, Section 5.02 Invoice/Billing Submission, is revised to add the following:

d. Contractor's contract amount under this Contract is a ceiling against which it may bill, on a fee-for-service basis, for the provision of allowable services to Title V eligible clients. Only allowable services provided to Title V eligible clients may be billed against this ceiling. The current schedule of

allowable services and rates, as well as Title V eligibility requirements, may be modified at the sole discretion of DSHS with thirty (30) days written notice to Contractor. The notice will provide Contractor with an opportunity to terminate this Contract should the modification include a reduction in rates. Contractor shall have thirty (30) days from receipt of this notice to exercise the option for termination. If the Contractor does not exercise the option during the thirty (30) day time period, Contractor shall be deemed to have waived the option.

e. Billing Activity: DSHS shall distribute funds in a way that will maximize the delivery of authorized services to eligible clients. DSHS will monitor Contractor's billing activity. If utilization is below that projected in Contractor's contract ceiling amount, shown in Section 17.c. Fee for Service/Unit Rate, Contractor's ceiling may be subject to a decrease for the remainder of the Contract period. Contractor may be subject to contract ceiling amount decreases if Contractor's billing activity is less than projected.

f. DSHS may pay for additional services as specified in this Contract if provided by Contractor during the term of this Contract (but not otherwise paid during the Contract term) if it is in the best interest of the State and the DSHS Program to do so, and if funds are available. If Contractor exceeds the ceiling amount of the Contract, Contractor shall continue to bill DSHS for the services provided. DSHS may pay for these additional services if funds become available at a later date.

6. General Provisions, Article VI, Terms and Conditions of Payment, is revised to add the following:

Section 6.04 Payment in Full. Contractor shall accept reimbursement or payment from DSHS and any applicable fees from clients for clinical health services as payment in full for services or goods provided to clients. Contractor shall not seek additional reimbursement or payment for services or goods from clients other than applicable fees for clinical health services.

7. General Provisions, Article X, Access, Inspection and Audit of Records, Section 10.01 Access and Inspection, is revised to add the following:

Contractor shall allow DSHS to conduct on-site quality assurance reviews as deemed necessary by DSHS. Unsatisfactory review findings may result in implementation of General Provisions, Article XV, Breach of Contract and Remedies for Non-Compliance.

8. General Provisions, Article XII, Assurances and Certifications, Section 12.01 Certification, is revised to add the following:

If appropriate, Contractor certifies that neither the Contractor, nor any individual who has a direct or indirect ownership or controlling interest of 5% or more of the Contracting Agency, nor any officer, director, agent or managing employee (e.g. general manager, business manager, administrator, director, or like individual who exercises operational or managerial control over the Contractor or who directly or indirectly conducts the day-to-day business of the Contractor is an entity or individual who:

a. Has been convicted of any offense under 42 U.S.C. § 1320a-7(b)(1)-(3);
b. Has had a civil monetary penalty assessed under 42 U.S.C. § 1320a and/or 42 U.S.C. § 1320a-8; or,
c. Has been excluded from participation in a program under 42 U.S.C. § 1395 et seq.; or under a State health care program.

If the foregoing statement is not true, Contractor shall submit a disclosure/ownership form to DSHS. Contractor shall immediately notify the DSHS in writing, in the event that the foregoing statement changes during the term of this Contract. A false statement regarding Contractor's status will be treated as a material misrepresentation.

9. General Provisions, Article XIII, General Business Operations of Contractor, Section 13.01 Program Site, is revised to add the following:

Contractor shall notify the Contract Development and Support Branch in writing of any clinic site information changes, e.g. changes in contact person, hours of operation, address, Texas Provider Identification (TPI) number, National Provider Identification (NPI) number, the closure, relocation, and/or opening of clinic site(s).

X. Except as provided in this Amendment, all other terms and conditions in the Contract will remain and be in full effect. To the extent of a conflict between the terms of the Contract and the terms of this Amendment, the terms of this Amendment shall prevail.

XI. This Amendment is effective on September 1, 2016.

By signing this Amendment, the undersigned certify that they have the authority to bind their respective party to this Amendment's terms and conditions.

Department Of State Health Services	**Contractor**
By:	By:
Title:	Title:
Date:	Date:

TEXAS Department of State Health Services

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FEE FOR SERVICE / UNIT RATE

Organization Name: Hidalgo County
Contract Number: 2016-003931-01
Proposal ID: FCHS-2017-CHS/TV-CHI-00024
Program ID: CHS/TV-CHILDHLTH
Procurement ID: GST-2016-Solicitation-00030
Procurement Name: FCHS GOLIVE TITLE V CHILD HLTH SERVICES

Item Number	Service	Type	Number to Serve	Rate	Cost
1	Child Health (include costs for laboratory and case management) 63 of 500	Clients	376	$81.21	$30,535
2	Child Dental 12 of 500	Clients	0	$0	$0
	0 of 500				
Total					**$30,535**

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Department of State Health Services

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CHILD SUPPORT CERTIFICATION

Organization Name: Hidalgo County
Contract Number: 2016-003931-01

The Texas Family Code §231.006, places certain restriction on child support obligors. Contracts with governmental entities or nonprofit corporations are not subject to §231.006.

The contractor identified above is not a governmental entity or a nonprofit corporation.

The contractor certifies the following is a complete list of the names and social security numbers of either the individual or sole proprietor who is the contractor or each partner, shareholder, or owner with an ownership interest of at least 25% of the contractor/business entity:

Name:	Social Security Number:

Under the Texas Family Code, §231.006, the contractor certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment withheld if this certification is in-accurate. A child support abligor who is more than 30 days delinquent in paying child support or a business entity in which the obligor (who is more than 30 days delinquent) is the sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25% is not eligible to receive the specified grant, loan or payment. The contractor understands that it is the contractor's responsibility to verify whether a child support obligor who is more than 30 days delinquent is the sole proprietor, partner, shareholder or owner with an ownership interest of at least 25%.

Applicable * Non-Applicable

Signature of Authorized Individual Date:

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Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification
Signature Page

Burrell, Deserie - FCHS
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DISCLOSURE OF OWNERSHIP AND CONTROL INTEREST STATEMENT

For definitions, procedures and requirements, refer to the appropriate Statutes or Regulations:
Title V – 42 USC §1397d
Title XVIII – 42CFR 420.200 – 206
Title XIX – 42CFR 455.100 – 106

Organization Name: Hidalgo County
Contract Number: 2016-003931-01

Completion and submission of this form is a condition of participation, certification, or recertification under any of the programs established by titles V, XVIII, and XIX, or as a condition of approval or renewal of a contractor agreement between the disclosing entity and the Department of State Health Services (DSHS) under any of the above-titled programs, a full and accurate disclosure of ownership and financial interest is required. Failure to submit requested information may result in a refusal by DSHS to enter into an agreement or contract with any such institution or in termination of existing agreements.

Answer all questions as of the current date.

Select the title(s) of the program(s) your organization provides services under: *

- [x] Title V
- [ ] Title XVIII
- [ ] Title XIX

Additional Orgnaization Information:

If your organization operates under a DBA, state the name below:

Enter the organization's provider number below:

General Questions:

1. Are there any individuals or organizations having a direct or indirect ownership or control interest of 5 percent or more in the institution, organization,or agency that have been convicted of a criminal offense related to the involvement of such persons, or organizations in any of the programs established by titles XVIII or XIX?

Yes * No

If yes, complete the table below:

Name:
Address:
City:
State:
Zip Code:

2. Are there any directors, officers, agents, or managing employees of the institution, agency or organization who have ever been convicted of a criminal offense related to their involvement in such programs established by titles XVIII or XIX?

Yes * No

If yes, complete the table below:

Name:
Address:
City:

State:

Zip Code:

3. Are any of the individuals, listed in question 1 and/or 2, currently employed by the institution, agency, or organization in a managerial, accounting, auditing, or similar capacity who were employed by the institution's, organization's, or agency's fiscal intermediary or carrier within the previous 12 months? **(Title XVIII providers only)**

Yes * No

If yes, complete the table below:

Name:

Address:

City:

State:

Zip Code:

4. List names, addresses for individuals having direct or indirect ownership or a controlling interest in the entity. If more than one individual is reported and any of these persons are related to each other, this must be reported under the Remarks Section.

Name:

Address:

City:

State:

Zip Code:

Remarks:

5. List organizations having direct or indirect ownership or a controlling interest in the entity.

Organization Name:

Director Name:

EIN Number:

Entity Type: If Other, Specify Type:

Address:

City:

State:

Zip Code:

6. Are any owners of the disclosing entity also owners of other Medicare/Medicaid facilities? (Example: sole proprietor, partnership or members of Board of Directors.)

Yes * No

If yes, list names, addresses of individuals and provider numbers.

Name:	Address:	Provider Number:

7. Has there been a change in ownership or control within the last year?

Yes * No

If yes, enter date of ownership change or control:

8. Do you anticipate any change of ownership or control within the next year?

Yes * No

If yes, enter date of anticipated ownership change or control:

9. Do you anticipate filing for bankruptcy within the year?

Yes * No

If yes, enter date of anticipated date for filing bankruptcy:

10. Is this facility operated by a management company, or leased in whole or part by another organization?

Yes * No

If yes, give date of change in operations:

11. Has there been a change in Administrator, Director of Nursing, or Medical Director within the last year?
Yes * No

12. Is the facility currently affiliated with a chain or previously affiliated with a chain?
Yes * No

If yes, complete the table below:

Name:
Affiliation Status:
Affiliate No.:
EIN Number:
Address:
City:
State:
Zip Code:

13. Have you increased your bed capacity by 10 percent or more or by 10 beds, whichever is greater, within the last 2 years?
Yes * No

If yes, provide the following:

Year of change:
Current Number of Beds:
Prior Number of Beds:

WHOEVER KNOWINGLY AND WILLFULLY MAKES OR CAUSES TO BE MADE A FALSE STATEMENT OR REPRESENTATION OF THIS STATEMENT, MAY BE PROSECUTED UNDER APPLICABLE FEDERAL OR STATE LAWS. IN ADDITION, KNOWINGLY AND WILLFULLY FAILING TO FULLY AND ACCURATELY DISCLOSE THE INFORMATION REQUESTED MAY RESULT IN DENIAL OF A REQUEST TO PARTICIPATE OR WHERE THE ENTITY ALREADY PARTICIPATES, A TERMINATION OF ITS AGREEMENT OR CONTRACT WITH DSHS.

As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and correct to the best of my knowledge.

Signature of Authorized Individual: Date:

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FISCAL FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA) CERTIFICATION

The certifications enumerated below represent material facts upon which DSHS relies when reporting information to the federal government required under federal law. If the Department later determines that the Contractor knowingly rendered an erroneous certification, DSHS may pursue all available remedies in accordance with Texas and U.S. law. Signor further agrees that it will provide immediate written notice to DSHS if at any time Signor learns that any of the certifications provided for below were erroneous when submitted or have since become erroneous by reason of changed circumstances. If the Signor cannot certify all of the statements contained in this section, Signor must provide written notice to DSHS detailing which of the below statements it cannot certify and why.

Organization Name	Hidalgo County				
Address	1304 S 25th St				
City	Edinburg	State	Texas	Zip Code (9 digit)	78539
Payee Name	Hidalgo County				
Address	Hidalgo County Treasurer 2810 S Business 281				
City	Edinburg	State	TX	Zip Code (9 digit)	78539-6243
Vendor identification No.		17460007176		MailCode	060
Payee DUNS No.		103110834			

1. Did your organization have a gross income, from all sources, of more than $300,000 in your previous tax year?

* Yes No

2. Certification Regarding % of Annual Gross from Federal Awards.
Did your organization receive 80% or more of its annual gross revenue from federal awards during the preceding fiscal year?

Yes * No

3. Certification Regarding Amount of Annual Gross from Federal Awards.
Did your organization receive $25 million or more in annual gross revenues from federal awards in the preceding fiscal year?

* Yes No

Identify contact persons for FFATA Correspondence.

FFATA Contact Person #1

Name	Ramon Garcia
Email	ramon.garcia@co.hidalgo.tx.us
Telephone	(956) 318-2600

FFATA Contact Person #2

Name	Ray Eufracio
Email	ray.eufracio@auditor.co.hidalgo.tx.us
Telephone	(956) 318-2511

As the authorized representative of the Organization, I hereby certify that the statements made by me in this certification form are true, complete and

correct to the best of my knowledge.

E-Signature Date

Navigation Links

- Child Support Certification
- Disclosure of Ownership and Control Interest Statement
- Fiscal Federal Funding Accountability and Transparency Act (FFATA) Certification
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DATE: September 13, 2016

DEPARTMENT HEAD: Eduardo Olivarez, Chief Administrative Officer

DEPARTMENT NAME: Hidalgo County Health & Human Services Department

ACCOUNT NUMBER: 6-1293-441-10-340-051-6-XXX Child Health

SUBJECT: Budget Amendments (Increases) in Accordance with Local Government Code, Chapter 111, Subchapter C

Honorable Commissioner's Court of Hidalgo County:

I would like to request the following amendments (increase) to my department budget in accordance with Local Government Code, Chapter 111, Subchapter C.

INCREASE OBJECT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT -
Personnel		
6-1293-441-10-340-051-6-113	Child Health - Reg F/T Employees	$ 19,373.00
Fringes		
6-1293-441-10-340-051-6-211	Child Health - Health Insurance	$ 5,256.00
6-1293-441-10-340-051-6-212	Child Health - Life Insurance	$ 35.00
6-1293-441-10-340-051-6-220	Child Health - FICA	$ 1,500.00
6-1293-441-10-340-051-6-230	Child Health - Retirement	$ 2,200.00
6-1293-441-10-340-051-6-250	Child Health - Unemployment Comp	$ 120.00
6-1293-441-10-340-051-6-260	Child Health - Workers Comp	$ 200.00
Travel		
Other		
6-1293-441-10-340-051-6-339	Child Health - Other Professional Services	$ 1,851.00
	TOTAL APPROPRIATION	$ 30,535.00
6-1293-331-12-340-051-6-000	Child Health - Grant Revenue	$ 30,535.00
	TOTAL APPROPRIATION	$ 30,535.00

REASON: To appropriate the Child Health program allocation for FY 17

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONER'S C(DATE ATTEST CO. CLERK

Child Health FY 17

Salary / Fringes Salary Schedule
09/01/2016 - 08/31/2017
For Budget Purposes Only

					Hourly		Work Hours	Work	09/01/16 to 08/31/17			Distribution				Insurance	
Slot #	Position Title	2016	General Fund Salary	Child Health Salary	Hourly Rate	Hourly Rate + 0% COLA	# of Hours 09/01/16 to 12/31/16	# of Hours 01/01/17 to 08/31/17	Projected Sal 09/01/16 to 12/31/16	Projected Sal 01/01/17 to 08/31/17	Projected Salaries	340-003	%	340-051	%	Health Ins.	Life Ins.
G002	Clerk II	22,972.00	3,675.00	19,297.00	9.28	9.28	696	1,392	6,457.07	12,914.15	19,371.22	3,675.00	0.16	19,371.22	0.84	5,255.18	31.55
							Total Gross Salary - >							**19,371.22**		**5,255.18**	**31.55**
							Health Insurance - ($6,256.00 / yr * % of pay from grant)							**5,255.18**			
							Life Insurance - ($37.56 / Yr / person prorated by % of pay from grant)							**31.55**			
							FICA - (7.65% * Gross Salary)							**1,481.90**			
							Retirement - (11.25% * Gross Salary)							**2,179.26**			
							Unemployment - (.60% * Gross Salary)							**116.23**			
							Worker's Comp - (.94% * Gross Salary)							**182.09**			
														28,617.43			

Notes:

1 There are 2,088 work hours during the grant period of 09/01/2015 through 08/31/2016.
2 Health Insurance is $6,256.00 / yr times the percentage of pay from the grant. ($514.00 * 4 months + $525.00 * 8 months) (Prorated based on % of grant funded portion)
3 0% COLA budgeted from 01/01/17.
4 Fringe rates current as of 09/08/16.

Prepared by
Health Human Services Dept.
09/08/16

Mike Escaname

From: Bourda,Michael (HHSC/DSHS) <Michael.Bourda@hhsc.state.tx.us>
Sent: Thursday, September 08, 2016 1:12 PM
To: Mike Escaname
Cc: Torres,Leroy (DSHS)
Subject: RE: Request - Funding Source for Title V Fee-For-Service Child Health - Hidalgo County

Mike,

The CDFA # is 94.944.000

This is for only Child Health and Dental.

From: Mike Escaname [mailto:miguel.escaname@hchd.org]
Sent: Thursday, September 08, 2016 11:09 AM
To: Bourda,Michael (HHSC/DSHS)
Cc: Burrell,Deserie (DSHS)
Subject: Request - Funding Source for Title V Fee-For-Service Child Health - Hidalgo County

Hello Michael,

We are in receipt of our Title V Fee-for-Service Child Health contract Amendment (attached).

For financial reporting purposes, I'd appreciate if you can provide the funding source for the additional funds that have been added in the amount of $30,535.00.

If federal funds, please provide the CFDA #.

Thanks,

Mike Escaname
Budget Manager
Hidalgo County Health & Human Services Department
1304 S. 25 Ave
Edinburg, TX 78542-7205
Main Line (956) 383-6221
Direct Line (956) 292-7000 ext. 7210

AI-56082 **Urban County** **9. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Diana Serna, URBAN COUNTY **Submitted By:** Sandra Regalado, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Approval of First Amendment of that certain Interlocal Cooperation Agreement between the County of Hidalgo and the City of McAllen, Texas acting by and though its Public Utility Board for additional sewer connections for Hoehn Subdivision Project.

2. In accordance with Section 791.014 of the Texas Government Code, requesting approval of the Interlocal Cooperation Agreement (ICA) for the Hoehn Subdivision Project.

BACKGROUND

Amendment was necessary to provide 50 additional sanitary sewer connections.

Fiscal Impact

FISCAL YEAR: **ACCT. #:**

FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

City will pay County $51,000.00 as per Interlocal Agreement terms

---

Attachments

Amendment No. 1
exhibit
Legal Approval

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 01:32 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Sandra Regalado Started On: 08/26/2016 10:49 AM
Final Approval Date: 09/09/2016

STATE OF TEXAS §

COUNTY OF HIDALGO §

FIRST AMENDMENT TO INTERLOCAL COOPERATION AGREEMENT BETWEEN HIDALGO COUNTY AND THE CITY OF McALLEN, TEXAS

This Agreement is made on this the ___ day of _____, 2016 by and between Hidalgo County, Texas, hereinafter referred to "County" and The City of McAllen, Texas acting by and through its Public Utility Board hereinafter referred to as "City", pursuant to the provisions of the Texas Interlocal Cooperation Act, as follows:

WHEREAS, County and City entered into an Interlocal Cooperation Agreement dated June 9th, 2015 (the "Agreement") in which the City agrees to provide funding to the County to construct among other items residential sewer lines and filling of on-site sewage facilities;

WHEREAS, the parties have determined to increase the number of residential sewer lines to be connected in Hoehn Drive Subdivision, to increase the number of on-site service facilities to be filled in Hoehn Drive Subdivision and to increase the amount of funds to contributed by City to accomplish same;

NOW THEREFORE, City and County, in consideration of the mutual covenants expressed hereinafter, agree as follows:

1. A third sentence shall be added to numbered paragraph 1 of the Agreement as follows:

   City agrees to pay County an additional sum of Fifty One Thousand and no one hundredths dollars ($51,000.00) on execution of this First Amendment to Interlocal Agreement between Hidalgo County and the City of McAllen to provide an additional fifty (50) residential sewer line connections and to fill an additional fifty (50) on-site residential sewage facilities.

2. A fourth sentence shall be added to numbered paragraph 1 of the Agreement to read as follows:

   County upon receipt of such $51,000.00 from City agrees to cause its Contractor to perform work necessary to connect fifty (50) additional residential sewer lines and fill an additional fifty (50) on site residential sewage facilities at the residences in Hoehn Subdivision described on Exhibit A

attached hereto and incorporated herein at this point for all purposes.

3. Except as modified herein, all terms and conditions of the Agreement as amended, remain in full force and effect. County and City ratify and confirm the terms and provisions of the Agreement as amended.

EXECUTED IN DUPLICATE ORIGINALS and effective as of the day and year first written above.

ATTEST:

By: _____
Arturo Guajardo, Jr., County Clerk

COUNTY OF HIDALGO

By: _____
Ramon Garcia, County Judge

APPROVED AS TO FORM:
ATLAS, HALL & RODRIGUEZ, LLP

By: _____
Stephen L. Crain

ATTEST:

By: _____
Annette Villarreal, TRMC/CMC, CPM
City Secretary

CITY OF McALLEN

By: _____
James E. Darling, Mayor

McALLEN PUBLIC UTILITY BOARD

ATTEST:

By: _____
Charles E. Amos, Chairman

By: _____
Nyla L. Flatau, TRMC/CMC
Utility Board Secretary

APPROVED AS TO FORM:
CITY ATTORNEY

By: _____
Kevin D. Pagan

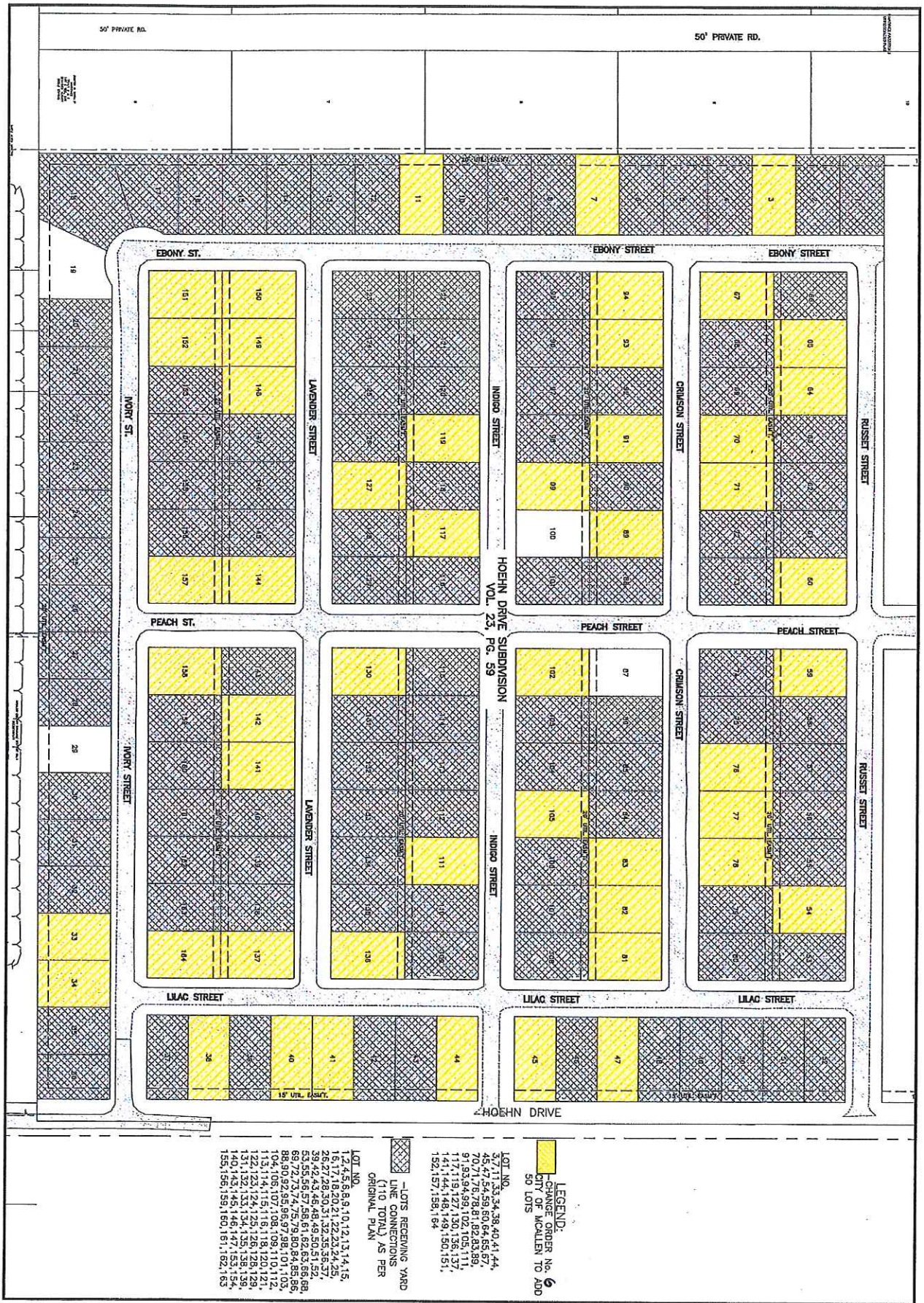

EXHIBIT "A"

COMMISSIONER
JOSEPH PALACIOS
HIDALGO COUNTY PCT 4
IMPROVEMENT PROJECTS

HIDALGO COUNTY
PRECINCT 4
1051 N. DOOLITTLE RD
EDINBURG TX. 78542
TEL:(956) 383-3112 FAX: (956) 381-5805
www.co.hidalgo.tx.us

SCALE: 1"=200'
DRAWN BY: HalfMTS
DESIGNED BY: C. Perez
CHECKED BY: E.Vizcaino
SHEET: C1

Drawing: E:\PCT 4\Hoehn Sanitary Sewer\McAllen Exhibit for Sewer Services.dwg
Layout: Tabl Plan Layout Date: 08/29/2016 Time: 09:12:11 AM

First Amendment City of McAllen (PUB) and County of Hidalgo Agreement

From : Marynel Trevino <mntrevino@atlashall.com> Fri, Sep 09, 2016 11:33 AM

Subject : First Amendment City of McAllen (PUB) and County of Hidalgo Agreement 1 attachment

To : Sandra Regalado <sandra.regalado@co.hidalgo.tx.us>

Hi and here go

Marynel Trevino-Rodriguez, Secretary for
Stephen L. Crain & J. Joseph Vale
ATLAS, HALL & RODRIGUEZ, LLP
818 Pecan Blvd. (78501)
P. O. Box 3725
McAllen, Texas 78502
Direct Dial Number (956) 632-8221
Main Number (956) 682-5501
Fax Number (956) 686-6109
E-mail Address scrain@atlashall.com

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This communication does not reflect an intention by the sender or the sender's client or principal to conduct a transaction or make any agreement by electronic means. Nothing contained in this message or in any attachment shall satisfy the requirements for a writing, and nothing contained herein shall constitute a contract or electronic signature under the Electronic Signatures in Global and National Commerce Act, any version of the Uniform Electronic Transactions Act or any other statute governing electronic transactions.

DOC.pdf
40 KB

AI-56101 **Urban County** **9. B.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Diana Serna, URBAN COUNTY **Submitted By:** Sandra Regalado, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. The Urban County Program is requesting approval of Change Order # 7 to a Construction Contract with VG Vanguard Engineering, LLC for the Hoehn Subdivision Project.

2. Consideration and approval to authorize the County Judge to sign any and all documents associated with Change Orders and/or Amendments pertaining to the Hoehn Subdivision Project.

BACKGROUND

This change order is being recommended by the Project Engineer and will increase the contract amount by $51,000.00 after determination that an additional 50 sanitary sewer connections were necessary.

Funding of Change Order No. 7 will be provided by City of McAllen, Public Utility Board

Current Contract Amount $1,223,170.75
Change Order Amount: $ 51,000.00
Total Contract Amount: $1,274,170.75

Fiscal Impact

Attachments

Backup

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 03:35 PM

Glinda Pacheco	Glinda Pacheco	09/08/2016 03:53 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Sandra Regalado Started On: 08/26/2016 03:55 PM

Final Approval Date: 09/09/2016

HIDALGO COUNTY

URBAN COUNTY PROGRAM

UCP CONTRACT CHANGE ORDER REQUEST

CITY/PCT.

Hidalgo County Precinct No. 4
1051 N. Doolittle Road
Edinburg, Texas 78542

DATE: August 10, 2016

CHANGE ORDER NO. 7

CONTRACTOR/FIRM

VG Vanguard Engineering, LLC
4019 E. Expressway 83
Weslaco, Texas 78599

Phone #:
(956) 514-5086

PROJECT/NAME/ACCT. NO.

Colonial Construction
#713045
Hoehn Subdivision

You are hereby requested to comply with the following changes from the contract plans and specifications:

	Final Quantitative Adjustments		Quantitative Deletion
X	Unit Prices		Time Extension
	Quantitative Addition		Other

REASON:

See attached CO#6
Funds for the Change Order No. 7 are solely from the City of McAllen through Interlocal Agreement with Hidalgo County.

Contract price prior to change order . . . . . $ 1,223,170.75
Net Increase/Decrease of this Change Order . . . . . $ 51,000.00

Contract Price with Change Order . . . . . $ 1,274,170.75

Increase/Decrease in time Requesting an additional 50 sanitary sewer service connections .

HIDALGO COUNTY

URBAN COUNTY PROGRAM

UCP CONTRACT CHANGE ORDER REQUEST

PROJECT ENGINEER SIGNATURE DATE	Raul Sesin PRINTING NAME
CONTRACTOR'S SIGNATURE 8/23/16 DATE	Roberto Elissetche PRINTING NAME

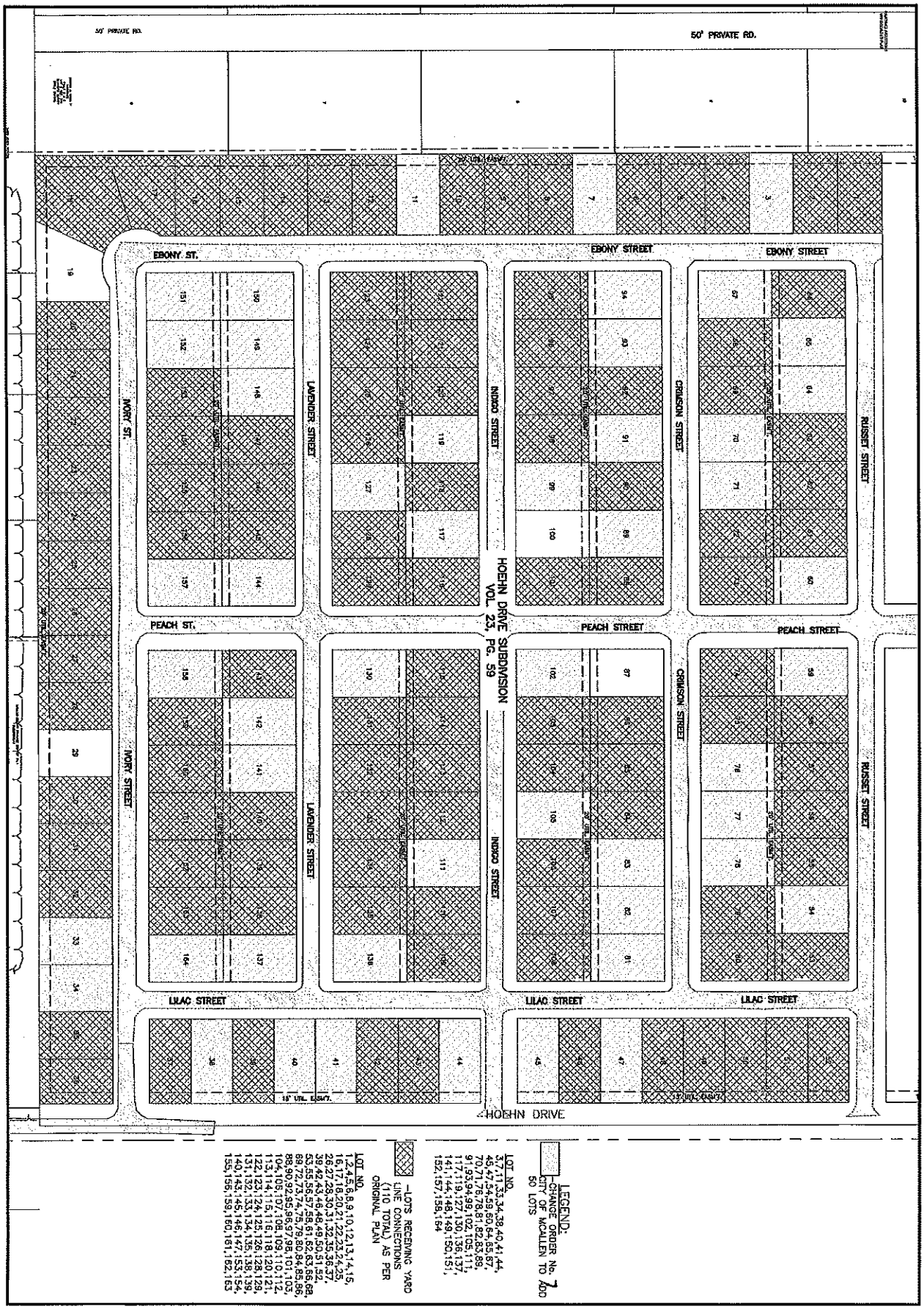
(FOR URBAN COUNTY PROGRAM USE ONLY)

- ☐ Scope Increase
- ☐ Scope Decrease
- ☐ L/M Beneficiary Change/Impact
- ☐ Environmental Impact
- ☐ Quantitative Addition/Deletion
- ☐ Final Quantitative Adjustment
- ☐ Other

☐ Approved ☐ Disapproved

Title:_____.

Signature:_____ Date: _____.



LEGEND:
CHANGE ORDER No. 7
CITY OF MCALLEN TO ADD 50 LOTS

LOTS RECEIVING YARD LINE CONNECTIONS (110 TOTAL) AS PER ORIGINAL PLAN

LOT NO.
37,111,33,34,38,40,41,44,
45,47,54,59,60,64,65,67,
70,71,76,78,81,82,83,89,
91,93,94,99,102,105,111,
117,119,127,130,136,137,
141,144,148,149,150,151,
152,157,158,164

LOT NO.
1,2,4,5,6,8,9,10,12,13,14,15,
16,17,18,20,21,22,23,24,25,
26,27,28,30,31,32,35,36,37,
39,42,43,46,48,49,50,51,52,
53,55,56,57,58,61,62,63,66,68,
69,72,73,74,75,77,79,80,84,85,86,
88,90,92,95,97,98,101,103,
104,106,107,108,109,110,112,
113,114,115,116,118,120,121,
122,123,124,125,126,128,129,
131,132,133,134,135,138,139,
140,142,143,146,147,153,154,
155,156,159,160,161,162,163

EXHIBIT "A"

COMMISSIONER
JOSEPH PALACIOS
HIDALGO COUNTY PCT 4
IMPROVEMENT PROJECTS

HIDALGO COUNTY
PRECINCT 4
1051 N. COOLIDGE RD
EDINBURG TX. 78542
TEL:(956) 383-3112 FAX: (956) 381-5905
www.co.hidalgo.tx.us

C1

DRAWN BY: HidalgoTS
DESIGNED BY: C. Perez
CHECKED BY: E.Yzaguirre
PROJECT:

AI-56242 **Urban County** **9. C.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) Professional Engineering Services-Construction Material Geo Technical Testing firms from the County's approved "pool" as graded and evaluated by the City of La Joya, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 27 (2014) La Joya Street Improvement funds.

Professioanl Service Firm	Grade	Ranked
Millennium Engineering Group	88.67%	
Fulcrum Consulting Engineers	86.00%	
Earth Co.	84.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of Construction Material Geo Technical Testing Services for an Urban County Program Year 27 (2014) La Joya Street Improvements project.

BACKGROUND

Project consists of funding for the paving of various street and those adjacent/abutting and within the same general vicinity. Others expenditures include but not limited to professional engineering services, geo-technical and material testing, advertisements, etc. Location: 11th, 12th, 13th, 14th, Vela/Jackson Street, Peralez/Martinez Street, Gonzalez Street, Alaniz Street, and Elizabeth Street, La Joya, Texas.

Fiscal Impact

Attachments

City of La Joya Construction Material Geo Testing Services-

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 08:03 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 09/07/2016 11:01 AM
Final Approval Date: 09/09/2016		

City of La Joya
Construction Material Geo-Testing Services
Street Improvements
Year 27 (2014)
Grading-Ranking Grid

Criteria	Millennium Engineering, Group			Fulcrum Consulting Services			Earth Co.		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Professional Qualifications of Team	24	25	18	23	25	18	23	25	18
Experience of Project Team	20	20	16	18	20	14	18	16	14
Experience/ Availability of Project Manager	19	20	16	18	17	15	19	20	15
Understanding of Project	24	21	22	23	23	19	22	20	19
Familiarity with Applicable Rules & Regulations	10	3	8	9	6	10	9	6	10
TOTALS	97	89	80	91	91	76	91	87	76
AVERAGES	266 % 3 = 88.67%			258 % 3 = 86.00%			254 %3 = 84.67%		
RATING									

RECEIVED
SEP - 1 2016
Urban County Program

EXHIBIT "B"

Evaluation Criteria and Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	9
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: utilize the latest measurement to effectively perform quality services	TOTAL	24
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: reliable experienced staff members of the organization.	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	9
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: essential staffs, available and responsive	TOTAL	19
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points: Specific needs of client, efficient communication, provide quality construction	TOTAL	24
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points: Compliance with local, County, State + Fed Engineering standards.	TOTAL	10
	TOTAL SCORE:	97

Project Name: La Joya- 2014 Street Improvements
Department: Hidalgo County Urban County Program
Firm/Participant: Name: Millennium Engineering Group
Evaluator: Mike Allen Date: 8/30/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points: Must express Knowledge of appropriate and applicable Rules (Federal, State, Local)	TOTAL	21
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	0
Comments/Rationale for points: Did not include narrative of applicable rules and regulations	TOTAL	3
	TOTAL SCORE:	89

Project Name: La Joya- 2014 Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant Name: Millennium Engineering Group

Evaluator: ANTONIO Baeo Date: 8-31-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	6
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	8
➢ A list of various projects for comparative purposes	5	4
22	**TOTAL**	**18**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	8
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	8
Comments/Rationale for points:	**TOTAL**	**16**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	8
Comments/Rationale for points:	**TOTAL**	**16**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	**TOTAL**	**22**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	4
Comments/Rationale for points:	**TOTAL**	**8**
	TOTAL SCORE:	**80**

Project Name: 2014 La Joya Street Improvements

Department:: Urban County

Firm/Participant: Name: Millennium Engineers Group, Inc.

Evaluator: Heidi Garcia Ortiz Date: 08/29/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	9
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	9
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: certified / licensed + qualified staff	TOTAL	23
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points: experienced, efficient + .	TOTAL	18
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	9
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points: Agency have worked with H/C projects + knowledgable of work performed .	TOTAL	18
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points: understanding of scope of services	TOTAL	23
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	4
Comments/Rationale for points: follows local / County / State, fed standards guidelines + policies.	TOTAL	9
	TOTAL SCORE:	91

Project Name: La Joya- 2014 Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Fulcrum Consulting Services

Evaluator: [signature] Date: 08/30/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points: Did not mention type of equipment to be utilized	TOTAL	17
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points: Must demonstrate understanding of the project and RFQ responsive	TOTAL	23
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	3
Comments/Rationale for points: Must clearly indicate past experience and a complete narrative	TOTAL	6
	TOTAL SCORE:	91

Project Name: La Joya- 2014 Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Fulcrum Consulting Services

Evaluator: ANTONIO Barco Date: 8-31-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	7
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	7
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	**TOTAL**	**18**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	7
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	7
Comments/Rationale for points:	**TOTAL**	**14**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	7
Comments/Rationale for points:	**TOTAL**	**15**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	8
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	**TOTAL**	**19**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	5
Comments/Rationale for points:	**TOTAL**	**10**
	TOTAL SCORE:	**76**

Project Name: 2014 La Joya Street Improvements

Department:: Urban County

Firm/Participant: Name: Fulcrum Consultants, Inc.

Evaluator: Heidi Garcia Ortiz Date: 08/29/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	9
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	9
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: efficient and experience of	TOTAL	23
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points: experienced staff	TOTAL	18
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points: Productive team w/ a supportive management team.	TOTAL	19
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points: knowledged and experience in writers w/ local, county state & Fed. level	TOTAL	22
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	4
Comments/Rationale for points: knowledgeable with govt regulations	TOTAL	9
	TOTAL SCORE:	91

Project Name: La Joya- 2014 Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Earth Co.

Evaluator: [signature] Date: 08/30/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	8 AB
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	8 AB
Comments/Rationale for points: Did not elaborate on STAFF to perform work	TOTAL	16 AB
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points: Must address appropriate rules and regulations, information to be gathered and RFQ responsive	TOTAL	20
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	3
Comments/Rationale for points: Must include a complete narrative of appropriate and regulations and past experiance	TOTAL	6
	TOTAL SCORE:	87

Project Name: La Joya- 2014 Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Earth Co.

Evaluator: ANTONIO Danco Date: 8-31-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	7
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	7
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	**TOTAL**	**18**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	7
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	7
Comments/Rationale for points:	**TOTAL**	**14**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	7
Comments/Rationale for points:	**TOTAL**	**15**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	8
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	**TOTAL**	**19**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	5
Comments/Rationale for points:	**TOTAL**	**10**
	TOTAL SCORE:	**76**

Project Name: 2014 La Joya Street Improvements

Department:: Urban County

Firm/Participant: Name: Earth Co.

Evaluator: Heidi Garcia Ortiz Date: 08/29/16

AI-56241 **Urban County** **9. D.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of Peñitas, Urban County Program, and Hidalgo County Purchasing Department, in connection with, and funded through Hidalgo County Urban County Program Year 29 (2016) Peñitas Other Public Facility Improvement funds.

Professional Service Firm	Grade	Ranked
LeFevre Engineering & Management Consulting, LLC	99.00%	
Rio Delta Engineering	84.00%	
CSJ Group	82.33%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Year 29 (2016) Peñitas, Other Public Facility Improvement project.

BACKGROUND

Project consists of the construction of a parking lot at the Peñitas Public Library, including adjacent/abutting streets, within the same general vicinity and any related appurtenances. Other expenditures will include professional engineering services, surveying, geo-technical and construction material testing fees, etc.

Fiscal Impact

Attachments

City of Peñitas engineering services Other Public Facility Improvement Project Year 29 (2016)

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 08:02 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 09/07/2016 10:55 AM
Final Approval Date: 09/09/2016		

City of Peñitas
Engineering Services
Other Public Facility Improvements Project
Year 29 (2016)
Grading-Ranking Grid

Criteria	LeFevre Engineering			Rio Delta Engineering			CSJ Group		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Professional Qualifications of Team	20	20	19	16	15	16	18	18	14
Experience of Project Team	25	25	25	25	25	19	23	20	15
Experience/ Availability of Project Manager	19	20	20	17	20	17	19	20	17
Understanding of Project	25	25	24	20	21	21	25	18	17
Familiarity with Applicable Rules & Regulations	10	10	10	10	3	7	10	6	7
TOTALS	99	100	98	88	84	80	95	82	70
AVERAGES	297 % 3 = 99.00%			252 % 3 = 84.00%			247 %3 = 82.33%		
RATING									

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV
EXHIBIT "B"

RECEIVED
AUG 25 2016
Urban County Program

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Was able to move readily locate licenses.		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Good Organization		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Methodology easily found and explained.		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Prior project experience acceptable		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Prior experience with gov't acceptable.		TOTAL 10
Total Score		99

Firm/Participant's Name: LeFevre Engineering

Evaluator: O. Romero-City of Penitas Department: H.C.-UCP

Project Name: 2016 Peñitas Other Public Fac. Imp.(Parking Lot -Library) Date: 8/23/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	
➢ Identifying the project composition, project leadership, reporting responsibilities	10	
➢ Experience of engineering staff to completely and efficiently perform the work.	10	
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 10
	Total Score	100

Firm/Participant's Name: LeFevre Engineering

Evaluator: Antonio Barco Department: H.C.-UCP

Project Name: 2016 Peñitas Other Public Fac. Imp.(Parking Lot -Library) Date: 8-30-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets most of criteria		TOTAL 19
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all Criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: References provided. Demonstrates understanding of scope of services		TOTAL 24
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Familiar w/ Applicable Rules + Regulations		TOTAL 10
	Total Score	93

Firm/Participant's Name: Lefevre Engineering

Evaluator: YB Echavarren Department: Purchasing

Project Name: Penitas Public Library - Parking Lot Date: 03/24/2016

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	8
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	4
Comments/Rationale For Points: Information not organized in efficient manner		TOTAL 16
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Resumes & work history very detailed.		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	8
Comments/Rationale For Points: Still had issue understanding & locating info		TOTAL 17
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	4
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	4
Comments/Rationale For Points: More detail/example could be used.		TOTAL 20
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Past experience with agency acceptable		TOTAL 10
Total Score		88

Firm/Participant's Name: Rio Delta Engineering

Evaluator: O. Romero - City of Peñitas Department: H.C.-UCP

Project Name: 2016 Peñitas Other Public Fac. Imp.(Parking Lot -Library) Date: 8/23/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	0
Comments/Rationale For Points: Did not provide chart		TOTAL 15
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Does not address appropriate Federal, State, and local regulations and not RFQ responsive		TOTAL 21
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	0
Comments/Rationale For Points: Did not provide narrative or indicate past experience of Applicable rules and regulations		TOTAL 3
	Total Score	84

Firm/Participant's Name: Rio Delta Engineering

Evaluator: Antonio Barco Department: H.C.-UCP

Project Name: 2016 Peñitas Other Public Fac. Imp.(Parking Lot -Library) Date: 8-30-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	3
➢ Team members identified in the organizational chart.	5	3
Comments/Rationale For Points: Licensed to practice in State of TX		TOTAL 16
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	4
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	7
➢		
Comments/Rationale For Points: Engineer has extensive experience to perform project		TOTAL 19
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	8
Comments/Rationale For Points: Project manager has experience		TOTAL 17
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	4
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Seems familiar w/scope of services. References available		TOTAL 21
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points: Does not properly address past experience/knowledge w/governmental rules		TOTAL 7
	Total Score	80

Firm/Participant's Name: Rio Delta Engineering

Evaluator: YB (delegated) Department: Purchasing

Project Name: Penitas Public Library Parking Lot Date: 08/29/2016

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	8
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Scope of project could require larger project team.		TOTAL 18
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	9
➢ Experience of engineering staff to completely and efficiently perform the work.	10	9
➢		
Comments/Rationale For Points: Not a lot of resources listed for the scope.		TOTAL 23
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Good explanation but needs to be more organized.		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Good background & project history.		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Prior experience with gov't acceptable.		TOTAL 10
	Total Score	95

Firm/Participant's Name: CSJ Group

Evaluator: O. Romero City of Peñitas Department: H.C.-UCP

Project Name: 2016 Peñitas Other Public Fac. Imp.(Parking Lot -Library) Date: 8/23/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	3
Comments/Rationale For Points: Meets most criteria, but did not mention STAFF members		TOTAL 18
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	4
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points: Needs to provide additional information on STAFF who will provide services besides engineer		TOTAL 20
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	4
Comments/Rationale For Points: Must include more information on STAFF and experience and relevant information to project(s)		TOTAL 18
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points: Must include a narrative and more information relevant to applicable rules and regulations		TOTAL 6
	Total Score	82

Firm/Participant's Name: CSJ Group

Evaluator: Antonio Daca Department: H.C.-UCP

Project Name: 2016 Peñitas Other Public Fac. Imp.(Parking Lot -Library) Date: 8-30-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	2
➢ Team members identified in the organizational chart.	5	2
Comments/Rationale for Points: On Organization chart only engineer listed w/support staff as team.		TOTAL 14
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	5
➢ Experience of engineering staff to completely and efficiently perform the work.	10	5
➢		
Comments/Rationale For Points: Only able to see engineer's qualifications within supporting staff.		TOTAL 15
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	3
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	7
Comments/Rationale For Points: Unable to locate similar project		TOTAL 17
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	4
➢ Address appropriate Federal/ State/ Local regulations and policies, Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	2
Comments/Rationale For Points: Unable to locate references		TOTAL 17
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points: Was unable to locate familiarity w/ Rules Regulations	Total Score	TOTAL 7 / 20

Firm/Participant's Name: CSJ Group

Evaluator: [illegible] Department: Purchasing

Project Name: Penitas Public Library Parking Lot Date: 08/29/2016

AI-56238 **Urban County** **9. E.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of Peñitas, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 29 (2016) Peñitas Sidewalk funds.

Professional Service Firm	Grade	Ranked
LeFevre Engineering & Management Consulting, LLC	93.33%	
CSJ Group	85.33%	
Rio Delta Engineering	82.33%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Year 29 (2016) Peñitas, Sidewalk project.

BACKGROUND

Project consists of the reconstruction of sidewalks along S. Main Street to include but not limited to, adjacent/abutting streets within the same general vicinity any related appurtenances such as professional engineering services, geo-technical and material testing fees, etc.

Fiscal Impact

Attachments

Peñitas Sidewalk project UCP Year 29 (2016)

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 08:02 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 09/07/2016 10:48 AM
Final Approval Date: 09/09/2016		

City of Peñitas
Engineering Services
Sidewalks Project
Year 29 (2016)
Grading-Ranking Grid

Criteria	LeFevre Engineering			CSJ Group			Rio Delta Engineering		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Professional Qualifications of Team	18	20	19	20	18	17	12	15	16
Experience of Project Team	23	25	22	25	20	18	24	25	18
Experience/ Availability of Project Manager	19	20	20	19	20	17	18	20	14
Understanding of Project	25	25	16	25	18	16	20	21	19
Familiarity with Applicable Rules & Regulations	10	10	8	10	6	7	8	3	9
TOTALS	95	100	85	99	82	75	87	84	76
AVERAGES	280 % 3 = 93.33%			256 % 3 = 85.33%			247 %3 = 82.33%		
RATING									

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AUG 25 2016
Urban County Program

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV
EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	8
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Licenses were at Back & not very well arranged.		TOTAL 18
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	9
➢ Experience of engineering staff to completely and efficiently perform the work.	10	9
➢		
Comments/Rationale For Points: Good breakdown of staff information		TOTAL 23
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Methodology may be a bit excessive for this project.		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Good understanding of projects of various types		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Several past cdbt projects		TOTAL 10
Total Score		95

Firm/Participant's Name: LeFevre Engineering

Evaluator: O. Romero – City of Peñitas Department: H.C.-UCP

Project Name: 2016 Peñitas Sidewalks Project Date: 8/23/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 10
Total Score		100

Firm/Participant's Name: LeFevre Engineering

Evaluator: Antonio Bueno Department: H.C.-UCP

Project Name: 2016 Peñitas Sidewalks Project Date: 8-30-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points:		TOTAL 19
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points:		TOTAL 22
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 95-100 % involvement with technical development of project	10	10
Comments/Rationale For Points:		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	3
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference information including contact persons and telephone numbers.	5	3
Comments/Rationale For Points: Firm did not submit ref. information for contacts		TOTAL 16
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	4
Comments/Rationale For Points:		TOTAL 8
	Total Score	85

Firm/Participant's Name: Lejeune Eng.

Evaluator: Sandra Patlan Department: Urban Dev.

Project Name: 2016 Pendas Sidewalk Reconstruction Date: 8/30/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Information readily accessible & easy to understand.		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Simple & straight forward		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Good explanation organization a bit hard to follow.		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Good project history and background.		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Prior experience with governmental agencies accepted.		TOTAL 10
Total Score		99

Firm/Participant's Name: CSJ Group

Evaluator: Ruben Romero - City of Pharr Department: H.C.-UCP

Project Name: 2016 Peñitas Sidewalks Project Date: 6/23/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	3
Comments/Rationale For Points: Meets most criteria, but did not mention STAFF members		TOTAL 18
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	4
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points: Needs to provide enough information on STAFF who will provide services in addition to Engineer		TOTAL 20
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	2
➢ Reference Information including contact persons and telephone numbers.	5	4
Comments/Rationale For Points: Must include more information on STAFF and experience and relevant information to project(s)		TOTAL 18
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points: Must include more information on Applicable rules & regulations and narrative		TOTAL 6
	Total Score	82

Firm/Participant's Name: CSJ Group

Evaluator: Antonio Barco Department: H.C.-UCP

Project Name: 2016 Peñitas Sidewalks Project Date: 8-30-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	3
Comments/Rationale For Points: Did not identify any team others than engineer		TOTAL 17
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	3
➢ Identifying the project composition, project leadership, reporting responsibilities	10	7
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points:		TOTAL 18
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	3
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	2
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points:		TOTAL 17
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	4
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	3
Comments/Rationale For Points: Did not provided contact persons + telephone numbers for ref.		TOTAL 17
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points:		TOTAL 7
	Total Score	75

Firm/Participant's Name: CSJ Group

Evaluator: Sandra Montalvo Department: Urban City

Project Name: 2016 Penitas Sidewalk Reconstruction of Sidewalks Date: 8/30/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	9
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	4
Comments/Rationale For Points: Information difficult to locate		TOTAL 17
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	9
➢		
Comments/Rationale For Points: Resumes very detailed.		TOTAL 24
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	9
Comments/Rationale For Points: Could not locate easily		TOTAL 18
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	4
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	4
Comments/Rationale For Points: Provided project list not explanation		TOTAL 20
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	4
Comments/Rationale For Points: Could not easily locate information.		TOTAL 8
Total Score		87

Firm/Participant's Name: Rio Delta Engineering

Evaluator: O. Romero - City of Peñitas Department: H.C.-UCP

Project Name: 2016 Peñitas Sidewalks Project Date: 8/23/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	0
Comments/Rationale For Points: Did not provide chart		TOTAL 15
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Did not address appropriate Federal, State and local regulations and not RFQ responsive		TOTAL 21
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	0
Comments/Rationale For Points: Did not provide narrative or address applicable rules and regulations		TOTAL 3
	Total Score	84

Firm/Participant's Name: Rio Delta Engineering

Evaluator: Antonio Danco Department: H.C.-UCP

Project Name: 2016 Peñitas Sidewalks Project Date: 8-30-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	9
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	3
Comments/Rationale For Points:		TOTAL 16
Firm did not provide organizational chart, just resumes + letter		
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	3
➢ Identifying the project composition, project leadership, reporting responsibilities	10	7
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points:		TOTAL 18
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	3
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	4
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	7
Comments/Rationale For Points:		TOTAL 14
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference information including contact persons and telephone numbers.	5	4
Comments/Rationale For Points:		TOTAL 19
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	4
Comments/Rationale For Points:		TOTAL 9
Total Score		76

Firm/Participant's Name: Rio Delta Engineering

Evaluator: Sandra Mabb D Department: Urban Eng

Project Name: 2016 Pantego Sidewalks Date: 8/31/16

Reconstruction of Sidewalks

AI-56235 **Urban County** **9. F.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for Professional Engineering Services-Construction Materials Geo-Technical Testing services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) Construction Materials Geo-Technical Testing engineering firms from the County's approved "pool" as graded and evaluated by the City of San Juan, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 29 (2016) San Juan Street Improvement funds.

Professional Service Firm	Grade	Ranked
Raba-Kistner Consultants, Inc.	97.33%	
L&G Engineering Group	96.00%	
Millennium Engineers Group	87.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of Construction Materials Geo-technical Testing Service for an Urban County Program Year 29 (2016) San Juan Street Improvements project.

BACKGROUND

Project consists of the re-construction of several streets to include but not limited to adjacent/abutting streets within the same general vicinity and any related appurtenances. Other expenditures will include professional engineering services, surveying, geotechnical and construction material testing fees, etc. Locations: Salazar St. (from Pullin Ave. to Coconut Palm Ave.) Pullin Avenue (from FM 495

to Salazar St.), Hooper Avenue (from FM 495 to Salazar St.) and Coconut Palm Ave. (from FM 495 to Salazar St.), San Juan, TX 78589.

Fiscal Impact

Attachments

Geo-technical/Material Testing Services City of San Juan

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 08:03 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 09/07/2016 10:33 AM
Final Approval Date: 09/09/2016		

City of San Juan
Geo-Technical/Material Testing Services
Street Improvements
Year 29 (2016)
Grading-Ranking Grid

Criteria	Raba-Kistner Consultants, Inc.			L & G Engineering Group			Millennium Engineering Group		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Professional Qualifications of Team	25	25	24	25	25	25	25	25	18
Experience of Project Team	18	20	20	18	20	20	18	20	18
Experience/ Availability of Project Manager	18	20	20	18	20	20	18	20	16
Understanding of Project	23	24	25	24	22	24	23	21	22
Familiarity with Applicable Rules & Regulations	10	10	10	10	8	9	10	3	8
TOTALS	94	99	99	95	95	98	94	89	80
AVERAGES	292 % 3 = 97.33%			288 % 3 = 96.00%			263 %3 = 87.67%		
RATING									

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Excellent on staffing and experience.	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points: Very good experience of engineering staff.	TOTAL	18
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	9
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points: Good management plan for project.	TOTAL	18
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points: Good understanding of all regulations and policies.	TOTAL	23
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points: Exceptional on this category.	TOTAL	10
	TOTAL SCORE:	94

Project Name: 2016 San Juan Street Improvements

Department: Hidalgo County-Urban County Program

Firm/Participant: Name: Raba-Kistner Consultants, Inc.

Evaluator: Xavier Cervantes / BJ Am Date: 8-26-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points: Meets most criteria, needs to include more information on approach to complete scope	TOTAL	24
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	10
	TOTAL SCORE:	99

Project Name: 2016 San Juan Street Improvements

Department: Hidalgo County-Urban County Program

Firm/Participant: Name: Raba-Kistner Consultants, Inc.

Evaluator: ANTONIO Barco Date: 8-31-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	**TOTAL**	**24**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	**TOTAL**	**20**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	**TOTAL**	**20**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	**TOTAL**	**25**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	5
Comments/Rationale for points:	**TOTAL**	**10**
	TOTAL SCORE:	**99**

Project Name: 2016 Street Improvements for the City of San Juan

Department:: Urban County

Firm/Participant: Name: Raba Kistner Consultants, Inc.

Evaluator: Heidi Garcia Ortiz Date: 8-25-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Excellent staffing capabilities for this firm.	**TOTAL**	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points: Very good experience.	**TOTAL**	18
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	9
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points: Very good knowledge and excellent management.	**TOTAL**	18
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points: Exceptional understanding of project.	**TOTAL**	24
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points: Excellent on this category.	**TOTAL**	10
	TOTAL SCORE:	95

Project Name: 2016 San Juan Street Improvements

Department: Hidalgo County-Urban County Program

Firm/Participant: Name: L & G Engineering Group

Evaluator: Xavier Cervantes / By A Date: 8-26-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points: Meets most criteria, but must provide more specific information appropriate Federal, State, and Local Regs.	TOTAL	22
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	4
Comments/Rationale for points: Did not provide a complete narrative of Applicable Rules & Regulations	TOTAL	8
	TOTAL SCORE:	95

Project Name: 2016 San Juan Street Improvements

Department: Hidalgo County-Urban County Program

Firm/Participant: Name: L & G Engineering Group

Evaluator: Antonio Barco Date: 8-31-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	**TOTAL**	**25**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	**TOTAL**	**20**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	**TOTAL**	**20**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	**TOTAL**	**24**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	4
Comments/Rationale for points:	**TOTAL**	**9**
	TOTAL SCORE:	**98**

Project Name: 2016 Street Improvements for the City of San Juan

Department:: Urban County

Firm/Participant: Name: L & G Consulting Engineers, Inc.

Evaluator: Heidi Garcia Ortiz Date: 08-25-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Exceptional staffing	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points: Very good experience of project team.	TOTAL	18
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	9
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points: Good knowledge and management plan.	TOTAL	18
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points: Good understanding of scope of services.	TOTAL	23
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points: Excellent on this.	TOTAL	10
	TOTAL SCORE:	94

Project Name: 2016 San Juan Street Improvements

Department: Hidalgo County-Urban County Program

Firm/Participant: Name: Millennium Engineering Group

Evaluator: Xavier Cervantes/By A Date: 8-26-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points: Must address Knowledge of appropriate and applicable rules and regulations	TOTAL	21
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	0
Comments/Rationale for points: Must include narrative of applicable rules + regulations and past knowledge appropriate codes, guidelines.	TOTAL	3
	TOTAL SCORE:	89

Project Name: 2016 San Juan Street Improvements

Department: Hidalgo County-Urban County Program

Firm/Participant: Name: Millennium Engineering Group

Evaluator: Antonio Saenz Date: 8-31-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	6
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	8
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	**TOTAL**	**18**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	8
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	8
Comments/Rationale for points:	**TOTAL**	**16**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	8
Comments/Rationale for points:	**TOTAL**	**16**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	**TOTAL**	**22**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	4
Comments/Rationale for points:	**TOTAL**	**8**
	TOTAL SCORE:	**80**

Project Name: 2016 Street Improvements for the City of San Juan

Department:: Urban County

Firm/Participant: Name: Millennium Engineers Group, Inc.

Evaluator: Heidi Garcia Ortiz Date: 8-25-16

AI-56234 **Urban County** **9. G.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of San Juan, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 29 (2016) San Juan Street Improvement funds.

Professional Service Firm	Grade	Ranked
S&B Infrastructure	94.67%	
Javier Hinojosa Engineering	93.33%	
Perez Consulting Engineers	91.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Year 29 (2016) San Juan, Street Improvements project.

BACKGROUND

Project consists of the re-construction of several streets to include but not limited to adjacent/abutting streets within the same general vicinity and any related appurtenances. Other expenditures will include professional engineering services, surveying, geotechnical and construction material testing fees, etc. Locations: Salazar St. (from Pullin Ave. to Coconut Palm Ave.) Pullin Avenue (from FM 495 to Salazar St.), Hooper Avenue (from FM 495 to Salazar St.) and Coconut Palm Ave. (from FM 495 to Salazar St.), San Juan, TX 78589.

Fiscal Impact

Attachments

San Juan street Improvement PR 29 (2016)

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 08:00 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 09/07/2016 09:36 AM
Final Approval Date: 09/09/2016		

City of San Juan
Engineering Services
Street Improvements
Year 29 (2016)
Grading-Ranking Grid

Criteria	S&B Infrastructure Group			Javier Hinojosa Engineering			Perez Consulting Engineers		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Professional Qualifications of Team	20	20	20	20	20	19	20	20	19
Experience of Project Team	21	25	25	21	25	25	21	25	23
Experience/ Availability of Project Manager	19	20	19	19	20	20	19	20	17
Understanding of Project	25	22	24	24	21	25	24	21	24
Familiarity with Applicable Rules & Regulations	10	4	10	10	4	7	10	3	9
TOTALS	95	91	98	94	90	96	94	89	92
AVERAGES	284 % 3 = 94.67%			280 % 3 = 93.33%			275 %3 = 91.67%		
RATING									

RECEIVED
AUG 29 2016
Urban County Program

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Excellent qualifications of firm.		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points: This firm has much experience on these types of projects.		TOTAL 21
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	9
Comments/Rationale For Points: The firm is exceptional in all these aspects.		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: The firm scored very well on these categories.		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: The firm is very familiar with the rules and regulations.		TOTAL 10
	Total Score	95

Firm/Participant's Name: S&B Infrastructure, LTD.

Evaluator: Xavier Cervantes / By Az Department: Hidalgo County- UCP

Project Name: 2016 San Juan Street Improvements Date: 8-26-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Meets most criteria, but must address Applicable rules and be more RFQ responsive		TOTAL 22
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	0
Comments/Rationale For Points: Must include narrative on applicable rules and regulations		TOTAL 4
	Total Score	91

Firm/Participant's Name: S&B Infrastructure, LTD.

Evaluator: Antonio Barco Department: Hidalgo County- UCP

Project Name: 2016 San Juan Street Improvements Date: 8-31-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Numerous qualified/certified engineers		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Extensive experience demonstrated in response		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	9
Comments/Rationale For Points: Project manager identified w/project experience		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference information including contact persons and telephone numbers	5	4
Comments/Rationale For Points: Firm demonstrates understanding of governmental policies		TOTAL 24
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Demonstrates Familiarity with regulations		TOTAL 10
Total Score		98

Firm/Participant's Name: S & B Infrastructure, LTC

Evaluator: [signature] Department: Purchasing Department

Project Name: 2016-City of San Juan Street Improvements Date: 08/30/2016

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Excellent qualifications for this firm.		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points: This firm has very good experience.		TOTAL 21
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	9
Comments/Rationale For Points: This firm is available for the project.		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Good overall understanding of the project.		TOTAL 24
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Firm complies with this		TOTAL 10
	Total Score	94

Firm/Participant's Name: Javier Hinojosa Engineering

Evaluator: Xavier Cervantes / Buy A Department: Hidalgo County- UCP

Project Name: 2016 San Juan Street Improvements Date: 8-26-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Must Address Applicable rules and be more RFQ responsive		TOTAL 21
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	0
Comments/Rationale For Points: Must include narrative of applicable rules and regulations		TOTAL 4
	Total Score	90

Firm/Participant's Name: Javier Hinojosa Engineering

Evaluator: Antonio Barco Department: Hidalgo County- UCP

Project Name: 2016 San Juan Street Improvements Date: 8-31-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Has adequate qualified staff		TOTAL 19
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Engineers list several similar projects & meets most criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Meets most criteria		TOTAL 25
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points: Does not properly address past experience/knowledge of governmental rules		TOTAL 7
	Total Score	96

Firm/Participant's Name: Javier Hinojosa Engineering

Evaluator: [signature] Department: Purchasing Department

Project Name: 2016 City of San Juan Street Improvement Date: 08/29/2016

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Excellent qualifications for this firm.		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points: The firm has very good experience.		TOTAL 21
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	9
Comments/Rationale For Points: The methodology and management are acceptable.		TOTAL 19
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Good understanding of what the City needs.		TOTAL 24
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Good familiarity with rules and regulations.		TOTAL 10
	Total Score	94

Firm/Participant's Name: Perez Consulting Engineers

Evaluator: Xavier Cervantes/ Department: Hidalgo County- UCP

Project Name: 2016 San Juan Street Improvements Date: 8-26-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Must address knowledge of appropriate rules, and RFQ responsive.		TOTAL 21
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	0
Comments/Rationale For Points: Must indicate past experience of Firm of Applicable rules and regs., and must include narrative.		TOTAL 3
	Total Score	89

Firm/Participant's Name: Perez Consulting Engineers

Evaluator: Antonio Banco Department: Hidalgo County- UCP

Project Name: 2016 San Juan Street Improvements Date: 8-31-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. **Professional Qualifications of Project Team** (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	4
Comments/Rationale For Points: Has qualified/certified Engineers		TOTAL 19
2. **Experience of Project Team/Ability to Commit Resources** (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	4
➢ Identifying the project composition, project leadership, reporting responsibilities	10	9
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Engineers list several similar projects. Meets most of criteria		TOTAL 23
3. **Methodology/Experience/Availability of Project Manager** (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	7
Comments/Rationale For Points: Project Manager has experience in similar projects		TOTAL 17
4. **Understanding of Project/Similar Projects** (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Demonstrates understanding of scope of services, regulations & policies		TOTAL 24
5. **Familiarity with Applicable Rules and Regulations** (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	4
Comments/Rationale For Points: Demonstrates familiarity with applicable rules & regulations		TOTAL 9
	Total Score	92

Firm/Participant's Name: Perez Consulting Engineers

Evaluator: YPelaezquer Department: Purchasing

Project Name: 2016 City of San Juan Street Improvements Date: 08/29/2016

AI-56127 **Urban County** **9. H.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for Professional Engineering Services - Construction Materials Geo Technical Testing services;

2. Presentation of the scoring grid for the purpose of ranking by Commissioner's Court of at least three (3) Engineering firms from the county's approved "pool" as graded and evaluated by the City of Weslaco, Urban County Program and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 28 (2015) City of Weslaco – Water/Sewer Improvement funds.

Professional Service Firm	Grade	Ranked
RABA Kistner	99.00%	
Terracon Consultants, Inc.	91.67%	
Millennium Engineers Group	89.33%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of construction material testing services for an Urban County Program Year 28 (2015) City of Weslaco – Water/Sewer Improvements project.

BACKGROUND

Engineering will be conducted at the alleys/streets between Oregon Ave., Michigan Ave. and Iowa Ave. identified in Years 25-28 (2012 - 2015) work plans.

Funds Available: $252,748.41 YR 28 (2015) Water/Sewer Improvements

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Fiscal Impact

Attachments

Scoring Grid City of Weslaco Water/Sewer Improvement

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	08/30/2016 02:53 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 08/30/2016 10:23 AM
Final Approval Date: 09/09/2016		

City of Weslaco
Water/Sewer Improvements Project
Construction Material Testing Services
Years 28 (2015)
Grading-Ranking Grid

Criteria	RABA Kistner			TERRACON			MEG Engineers		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Staffing of Project Team	24	25	24	25	25	22	24	25	18
Experience of Project Team/ Ability to Commit Resources	20	20	20	20	20	18	20	20	16
Methodology/ Experience/ Availability of Project Manager	20	20	20	20	20	17	20	20	16
Understanding of Project/Similar Projects	25	24	25	25	21	21	25	21	22
Familiarity with Applicable Rules & Regulations	10	10	10	10	3	8	10	3	8
TOTALS	99	99	99	100	89	86	99	89	80
AVERAGES	297÷3=99%			275÷3=91.67%			268÷3=89.33%		
RATING	1			2			3		

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	9
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	TOTAL	24
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	TOTAL	25
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points:	TOTAL	10
	TOTAL SCORE:	99

Project Name: 2015 City of Weslaco - Waterline Project

Department: City of Weslaco

Firm/Participant: Name: RABA Kistner

Evaluator: Mardoqueo Hinojosa Date: 8-26-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria.	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points: Meets most criteria, but must Address Appropriate Federal, State + Local regulations	TOTAL	24
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	10
	TOTAL SCORE:	99

Project Name: 2015 City of Weslaco - Waterline Project

Department: Urban County Program

Firm/Participant: Name: RABA Kistner

Evaluator: Antonio Barco Date: 8/24/16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	**TOTAL**	**24**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	**TOTAL**	**20**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	**TOTAL**	**20**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	**TOTAL**	**25**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	5
Comments/Rationale for points:	**TOTAL**	**10**
	TOTAL SCORE:	**99**

Project Name: City of Weslaco Waterline Improvements Project

Department:: Urban County

Firm/Participant: Name: Raba Kistner

Evaluator: Heidi Garcia Ortiz Date: 08-23-16

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EXHIBIT "B"

Evaluation Criteria and Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	TOTAL	25
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points:	TOTAL	10
	TOTAL SCORE:	100

Project Name: 2015 City of Weslaco - Waterline Project
Department: City of Weslaco
Firm/Participant: Name: Terracon Consultants, Inc.
Evaluator: Mardoqueo Arnojosa Date: 8-26-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points: Meets most criteria, but must address Appropriate Federal, State and Local regs. - Not RFQ responsive.	TOTAL	21
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	0
Comments/Rationale for points: Must provide Narrative of Applicable rules + Regulations and past Firm experience.	TOTAL	3
	TOTAL SCORE:	89

Project Name: 2015 City of Weslaco - Waterline Project

Department: Urban County Program

Firm/Participant: Name: Terracon Consultants, Inc.

Evaluator: ANTONIO BARCO Date: 8-24-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	7
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	**TOTAL**	**22**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points:	**TOTAL**	**18**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points:	**TOTAL**	**17**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points:	**TOTAL**	**21**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	3
Comments/Rationale for points:	**TOTAL**	**8**
	TOTAL SCORE:	**86**

Project Name: City of Weslaco Waterline Improvements Project

Department:: Urban County

Firm/Participant: Name: Terracon

Evaluator: Heidi Garcia Ortiz Date: 08-23-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	9
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	TOTAL	24
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	TOTAL	25
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points:	TOTAL	10
	TOTAL SCORE:	99

Project Name: 2015 City of Weslaco - Waterline Project

Department: City of Weslaco

Firm/Participant: Name: Millennium Engineers Group

Evaluator: Mardoqueo Hinojosa Date: 8-26-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points: Must address Knowledge of Appropriate and Applicable rules and regulations	TOTAL	21
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	0
Comments/Rationale for points: Did not include Narrative and Past experience/knowledge of Applicable rules + Regs.	TOTAL	3
	TOTAL SCORE:	89

Project Name: 2015 City of Weslaco - Waterline Project

Department: Urban County Program

Firm/Participant: Name: Millennium Engineers Group

Evaluator: ANTONIO GARCIA Date: 8-24-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	6
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	8
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	**TOTAL**	**18**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	8
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	8
Comments/Rationale for points:	**TOTAL**	**16**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	8
Comments/Rationale for points:	**TOTAL**	**16**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	**TOTAL**	**22**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	**5**	4
Comments/Rationale for points:	**TOTAL**	**8**
	TOTAL SCORE:	**80**

Project Name: City of Weslaco – Waterline Improvements Project

Department:: Urban County

Firm/Participant: Name: Millennium Engineers Group, Inc.

Evaluator: Heidi Garcia Ortiz Date: 08-23-2016

AI-56126 **Urban County** **9. I.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services.

2. Presentation of the scoring grid for the purpose of ranking by Commissioner's Court of at least three (3) professional engineering firms from the county's approved "pool" as graded and evaluated by the City of Edcouch, Urban County Program and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Years 26 & 27 (2013 & 2014) City of Edcouch– Street Improvement funds.

Professional Service Firm	Grade	Ranked
Fulcrum Consulting Services	95.00%	
Guzman & Munoz Engineering and Surveying, Inc	92.33%	
Rio Delta Engineering	83.67%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____ for the provision of engineering services for an Urban County Program Years 26 & 27 (2013 & 2014) City of Edcouch– Street Improvements project.

BACKGROUND

Engineering will be conducted at various streets identified in Years 26 & 27 (2013 & 2014) amended work plans.

Funds Available: $ 59,738.74 YR 26 (2013) Street Improvements
$156,328.63 YR 27 (2014) Street Improvements
Total: $216,067.37

Fiscal Impact

Attachments

Scoring Grid for City of Edcouch Street Improvements

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	08/30/2016 02:52 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 08/30/2016 10:13 AM
Final Approval Date: 09/09/2016		

City of Edcouch
Professional Engineering Services
Street Improvements Project
Years 26 & 27 (2013 & 2014)
Grading-Ranking Grid

Criteria	LAZCAMREA, LLC dba Fulcrum Consulting Services			Guzman & Muñoz Engineering and Surveying			Rio Delta Engineering		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Professional Qualifications of Project Team	20	20	19	20	20	20	20	15	16
Experience of Project Team/ Ability to Commit Resources	24	25	23	22	25	23	22	21	19
Methodology/ Experience/ Availability of Project Manager	20	20	15	16	20	18	16	20	17
Understanding of Project/Similar Projects	24	23	22	24	19	22	23	20	21
Familiarity with Applicable Rules & Regulations	10	10	10	10	8	10	10	4	7
TOTALS	98	98	89	92	92	93	91	80	80
AVERAGES	285÷3=95%			277÷3=92.33%			251÷3=83.67%		
RATING	1			2			3		

RECEIVED
AUG 15 2016
Urban County Program

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Organization Team members identified. Registered & licensed Engineer Organizational chart identified.		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	9
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Staff members identified, has shown leadership & responsibilities shows experience to complete projects.		TOTAL 24
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Shows good management & good approach to scope of service for our kind of projects. Has a Registered Professional Engineer & Has completed different types of Projects		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Has prior experience on scope of services for State projects/Federal & County projects. Is well organize & good references.		TOTAL 24
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Has past experience & knowledge on regulations, guidelines, policies, etc.		TOTAL 10
Total Score		98

Firm/Participant's Name: LAZCAMREA, LLC Fulcrum Consulting Services

Evaluator: NOE CAMACHO, City Manager Department: City of Edcouch

Project Name: 2013/2014 City of Edcouch Street Improvements Date: 8-15-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Meets most criteria, but must be More RFQ responsive		TOTAL 23
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 10
	Total Score	98

Firm/Participant's Name: LAZCAMREA, LLC Fulcrum Consulting Services

Evaluator: Antonio Darco Department: Urban County Program

Project Name: 2013/2014 City of Edcouch Street Improvements Date: 8-24-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	4
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets requirements		TOTAL 19
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	9
➢ Experience of engineering staff to completely and efficiently perform the work.	10	9
➢		
Comments/Rationale For Points: Meets requirements		TOTAL 23
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	3
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	7
Comments/Rationale For Points: Project manager has extensive experience. Did not list any similar projects that are street improvements		TOTAL 15
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	4
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points:		TOTAL 22
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Familiarity with governmental regulations/policies		TOTAL 10
Total Score		89

Firm/Participant's Name: Fulcrum Consulting Services

Evaluator: [signature] Department: Purchasing Department

Project Name: 2013/2014 Street Improvements-City of Edcouch Date: 08/19/2016

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AUG 15 2016
Urban County Program

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV
EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Registered + licensed engineer + team qualifications		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	7
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Has designated staff + experience		TOTAL 22
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	3
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	3
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Has Professional Eng. Registered		TOTAL 16
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: RFQ responsiveness + knows scope of work		TOTAL 24
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Is familiar with rules guidelines + regulations.		TOTAL 10
	Total Score	92

Firm/Participant's Name: Guzman & Muñoz Engineering and Surveying

Evaluator: NOE CAVAZOS City Manager Department: City of Edcouch

Project Name: 2013/2014 City of Edcouch Street Improvements Date: 8/10/16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Meets all criteria		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	10
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Meets all criteria		TOTAL 25
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all criteria		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Meets most criteria but must elaborate on information gathered and RFQ responsive		TOTAL 19
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points: Meets most criterias, but must elaborate more on narrative		TOTAL 8
	Total Score	92

Firm/Participant's Name: Guzman & Muñoz Engineering and Surveying, Inc.

Evaluator: Antonio Barco Department: Urban County Program

Project Name: 2013/2014 City of Edcouch Street Improvements Date: 06-24-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points:		TOTAL 20
Meets requirements		
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	9
➢ Experience of engineering staff to completely and efficiently perform the work.	10	9
➢		
Comments/Rationale For Points: Extensive Experience.		TOTAL 23
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	8
Comments/Rationale For Points: Precise easy to understand response. Able to locate similar projects.		TOTAL 18
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Meets most requirements		TOTAL 22
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Familiarity with governmental policies		TOTAL 10
Total Score		93

Firm/Participant's Name: Guzman & Munoz Engineering & Surveying, INC

Evaluator: [signature] Department: Purchasing Department

Project Name: 2013/2014 Street Improvements-City of Edcouch Date: 08/19/2016

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

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Urban County Program

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	5
Comments/Rationale For Points: Organization Team Identified. Registered & licensed engineer No organizational chart. Disclosure statement not done.		TOTAL 20
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	7
➢ Experience of engineering staff to completely and efficiently perform the work.	10	10
➢		
Comments/Rationale For Points: Does designate staff & project responsibilities. Have not work with this engineer to know if they can completely & efficiently preform the work.		TOTAL 22
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	3
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	4
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	9
Comments/Rationale For Points: Has registered engineer. approach to methodology & management not known by our city.		TOTAL 16
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	5
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Does demonstrate to know scope of service. RFQ does not have the disclosure report nor org. chart		TOTAL 23
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	5
Comments/Rationale For Points: Does indicate passed experience		TOTAL 10
Total Score		91

Firm/Participant's Name: Rio Delta Engineering

Evaluator: NOE CAVAZOS, City Manager Department: City of Edcouch

Project Name: 2013/2014 City of Edcouch Street Improvements Date: 8-15-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	5
➢ Team members identified in the organizational chart.	5	0
Comments/Rationale For Points: Did not provide organizational chart		TOTAL 15
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	5
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	8
➢		
Comments/Rationale For Points: Did not provide information on project composition, leadership and lacked much information		TOTAL 21
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	5
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	10
Comments/Rationale For Points: Meets all requirements		TOTAL 20
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	5
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	3
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Failed to provide enough information on most aspects of project requirements		TOTAL 20
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	0
Comments/Rationale For Points: Did not provide narrative on applicable rules and regulations		TOTAL 4
	Total Score	80

Firm/Participant's Name: Rio Delta Engineering

Evaluator: Antonio Baeza Department: Urban County Program

Project Name: 2013/2014 City of Edcouch Street Improvements Date: 8-25-16

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	10
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	3
➢ Team members identified in the organizational chart.	5	3
Comments/Rationale For Points: License and have worked with Hidalgo.		TOTAL 16
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	4
➢ Identifying the project composition, project leadership, reporting responsibilities	10	8
➢ Experience of engineering staff to completely and efficiently perform the work.	10	7
➢		
Comments/Rationale For Points: Engineer has extensive experience with ability to perform project.		TOTAL 19
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	4
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	5
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	8
Comments/Rationale For Points: Project manager has experience in similar projects		TOTAL 17
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	4
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	3
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	4
➢ Reference Information including contact persons and telephone numbers.	5	5
Comments/Rationale For Points: Seems familiar with scope of services/project. References available.		TOTAL 21
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	3
Comments/Rationale For Points: Does not properly address past experience/knowledge/familiarity with governmental rules		TOTAL 7
	Total Score	80

Firm/Participant's Name: Rio Delta Engineering

Evaluator: [signature] Department: Purchasing

Project Name: 2013/2014 Street Improvements-City of Edcouch Date: 08/19/2016

AI-56066 **Urban County** **9. J.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

"Subject to Compliance with HB 1295, when and if Applicable." Urban County Program on behalf of the City of Weslaco is requesting consideration and action to award and enter into a construction contract with RDH Site and Concrete, LLC for the base bid plus alternate for a total contract amount of $277,270.50. Utilizing FY's 25-28 (2012-2015) water/sewer improvements funds.

BACKGROUND

The Urban County Program has requested and received bids for the City of Weslaco – Waterline Improvements project (Alleys/Streets between Oregon Ave., Michigan Ave. and Iowa Ave.). Cruz-Hogan Consultants, Inc. prepared the specification packages and bids were received and opened at the Hidalgo County – Purchasing Department on August 10, 2016. After review the project engineer recommended RDH Site and Concrete, LLC as the lowest of nine (9) qualified bidders. (See attached recommendation letter from Ronnie Cruz, P.E., bid tabulation sheet, contract, certificate of liability insurance and HB 1295 form).

Funds Available: $ 31,367.30 FY 25 (2012) Water/Sewer Improvements
$ 20,311.58 FY 26 (2013) Water/Sewer Improvements
$ 24,608.87 FY 27 (2014) Water/Sewer Improvements
$252,748.41 FY 28 (2015) Water/Sewer Improvements
Total: $329,036.16

Fiscal Impact

Attachments

RDH Form 1295 & Insurance
Letter of Recommendation & Construction Contract

City of Weslaco Bid Tabulation Waterline Improvements

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	08/26/2016 08:05 AM
Glinda Pacheco	Glinda Pacheco	08/26/2016 03:11 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 08/25/2016 04:54 PM
Final Approval Date: 09/09/2016		

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-102274

Date Filed:
08/22/2016

Date Acknowledged:
08/22/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

RDH SITE AND CONCRETE, LLC
PALMVIEW, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

HIDALGO COUNTY URBAN COUNTY PROGRAM

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

5015-80-0310-5000-8000-UCP-ML
WATERLINE IMPROVEMENTS PROJECT

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
DE HOYOS, DIANALY	PHARR , TX United States	X	
DE HOYOS , ROGELIO	PHARR, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-102274

Date Filed:
08/22/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
RDH SITE AND CONCRETE, LLC
PALMVIEW, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
HIDALGO COUNTY URBAN COUNTY PROGRAM

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
5015-80-0310-5000-8000-UCP-ML
WATERLINE IMPROVEMENTS PROJECT

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
DE HOYOS, DIANALY	PHARR , TX United States	X	
DE HOYOS , ROGELIO	PHARR, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Dianaly DeHoyos, this the 22nd day of August, 2016, to certify which, witness my hand and seal of office.

Signature of officer administering oath — Printed name of officer administering oath — Title of officer administering oath

DENISE N. GARZA
Notary ID # 129929489
My Commission Expires
August 22, 2018

USER NAME PASSWORD LOG IN

Forgot Username? Forgot Password?

Create an Account

Entity Dashboard

- Entity Overview
- Entity Registration
  - Core Data
  - Assertions
  - Reps & Certs
  - POCs
- Exclusions
  - Active Exclusions
  - Inactive Exclusions
  - Excluded Family Members

RETURN TO SEARCH

RDH Site and Concrete, LLC

DUNS: 079449412 CAGE Code: 75K21

Status: Active

1201 E Moore Rd 89
Pharr, TX, 78577-6449 ,
UNITED STATES

Expiration Date: 06/30/2017

Purpose of Registration: All Awards

Entity Overview

Entity Registration Summary

Name: RDH Site and Concrete, LLC
Business Type: Business or Organization
Last Updated By: Dianaly De Hoyos
Registration Status: Active
Activation Date: 06/30/2016
Expiration Date: 06/30/2017

Exclusion Summary

Active Exclusion Records? No

Note to all Users: This is a Federal Government computer system. Use of this system constitutes consent to monitoring at all times.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/22/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
SALAZAR INSURANCE AGENCY
6421 N 10th, Ste 160
Mc Allen, TX 78504

CONTACT NAME:
PHONE (A/C, No, Ext): (956) 631-0004 FAX (A/C, No): (956) 630-3209
E-MAIL ADDRESS: nancy@salazarinsuranceagency.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: KINSALE INS. CO.	
INSURER B: AMTRUST NORTH AMERICA	
INSURER C: KINSALE INS. CO.	C
INSURER D: TEXAS MUTUAL INS. CO.	
INSURER E:	
INSURER F:	

INSURED
RDH SITE & CONCRETE LLC
3809 CLAVEL ST., SUITE D
PALMVIEW, TX 78572
956-502-5426
956-784-1366

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:	X		0100035525	02/01/16	02/01/17	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [X] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS	X		KPP1038565	05/26/16	05/26/17	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	[X] UMBRELLA LIAB [X] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $	X		0100035523-0	02/01/16	2/01/17	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [N] N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			TSF-0001300743	02/03/16	02/03/17	[ ] PER STATUTE [X] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
PROJECT: 5015-80-0310-5000-8000-UCP-ML WATERLINE IMPROVEMENTS PROJECT

CERTIFICATE HOLDER
HIDALGO COUNTY URBAN COUNTY PROGRAM
427 E. DURANTA AVE. SUITE 107
ALAMO, TX 78516

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Nancy D. Salazar Perez

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CRUZ-HOGAN Consultants, Inc.
ENGINEERS | PLANNERS | CONSULTANTS
Weslaco | Harlingen | McAllen
TBPE Firm Reg No. F-4860

August 15, 2016

Diana Serna
Director
County of Hidalgo - Urban County Program
427 E. Duranta Avenue, Suite 107
Alamo, Texas 78516

Re: Letter of Recommendation
Urban County Program No.: 5015-80-0310-5000-8000-UCP-ML
Waterline Improvements Project
(Alleys/Streets between Oregon, Michigan and Iowa Ave.)
City of Weslaco, Texas

Dear Ms. Serna:

We have reviewed the nine (9) bids received August 10, 2016, for the Waterline Improvements Project (Alleys/Streets between Oregon, Michigan and Iowa Ave.) in the City of Weslaco, Texas. Enclosed you will find an itemized bid tabulation sheet for your review.

The low base bid submitted by RDH Site and Concrete, LLC from Weslaco, Texas in the amount of $222,670.50 and alternate bid in the amount of $54,600.00 for a total of $277,270.50 has been reviewed and appears to be in order. We recommend the low responsible bidder submitted by RDH Site and Concrete, LLC be accepted and a contract be awarded in the amount of $277,270.50. The estimated cost of the project was approximately $360,000.00.

If you have any questions, please feel free to contact me at (956) 682-5022.

Sincerely,

Ronnie Cruz, P.E., CFM
Vice President

RC/cr

Enclosure

cc: Monica Leal, Urban County *via E-mail: monica.leal@co.hidalgo.tx.us*
Mardoqueo Hinojosa, City of Weslaco *via E-mail: mhinojosa@weslacotx.gov*
Dianaly De Hoyos, RDH Site & Concrete, LLC *via E-mail: dianaly@rdhcompany.com*

605 E. Violet, Suite 1 • McAllen, Texas 78504
(956) 682-5022 • Fax (956) 682-5089
www.cruzhogan.net

CONSTRUCTION CONTRACT

This Agreement entered into this **September 13, 2016** by and between Hidalgo County acting by and through Hidalgo County Urban County Program, hereinafter called the "OWNER", acting herein through its County Judge and RDH Site and Concrete, LLC **(a corporation)** (a partnership) (an individual) of **Palmview,** State of Texas, hereinafter called "CONTRACTOR".

WITNESSETH

That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction described as follows:

PROJECT NAME: **City of Weslaco – Waterline Improvements Project**
PROJECT No.: **5015-80-0310-5000-8000-UCP-ML**
PROJECT DESCRIPTION: **Waterline Improvements**

hereinafter called the project, for the sum of **($277,270.50) – two hundred sixty-seven thousand two hundred seventy dollars and fifty cents** and all extra work in connection therewith, under the terms as stated in the General and Special Conditions of the Contract; and at his (its or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions, Supplemental General Conditions and Special Conditions of the contract, the plans, which include all maps, plats, blue prints, and other drawings and printed or written explanatory matter thereof, the specifications and contract documents therefore as prepared by **Cruz-Hogan Consultants, Inc.** and as enumerated in Paragraph 1 of the Supplemental General Conditions, all of which are made a part hereof and collectively evidence and constitute the contract.

The CONTRACTOR hereby agrees to commence work under this contract on or after a date to be specified in a written "Notice to Proceed" of the OWNER and to fully complete the project within **(90) Ninety** consecutive calendar days thereafter. The CONTRACTOR further agrees to pay, as liquidated damages, the sum of **($200.00) Three hundred dollars and zero cents** for each consecutive calendar day thereafter as hereinafter provided in Paragraph 19 of the General Conditions.

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions, as provided in the General Conditions of the contract, and to make payments on account thereof as provided in Paragraph 25, "Payments to Contractor", of the General Conditions.

IN WITNESS WHEREOF, the parties to these presents have executed this contract in four (4) counterparts, each of which shall be deemed an original, in year and day first above mentioned.

Name of Signatory: Dianaly de Hoyos
General Manager

Name of Firm: RDH Site and Concrete, LLC

Address: 3809 Chavel St., Suite D.
Palmview, Texas 78572

Federal I.D./S.S.: 46-5377221

STATE OF TEXAS '

'

COUNTY OF HIDALGO '

This instrument was acknowledged before me on this the ___ day of _____, 20 16 ,

by Dianaly de Hoyos, General Manager of and on behalf of _____.
(title) (a corporation) (a partnership) (an individual)

_____
Notary Public - Signature

WITNESS:

URBAN COUNTY PROGRAM

_____

_____
Diana R. Serna, Director
Urban County Program

APPROVED AS TO FORM
Atlas, Hall & Rodriguez
By: Stephen L. Crain
Date: April 28, 2016

ITEMIZED BID TABULATION SHEET

CITY OF WESLACO
Waterline Improvements Project
(Alleys/Streets between Oregon, Michigan and Iowa)
Urban County Bid No. 5015-80-0310-5000-8000-UCP-ML

	Item No.	Item Description	Unit	Est. Qty.	GA Construction		RDH Site and Concrete, LLC		Venser Contractors, LLC		PEGA JPS Utilities		The 5125 Company		GO Underground, LLC		Saenz Utility Contractors, LLC		Saenz Brothers Construction, LLC		Jimmy Closner & Sons Construction	
					Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
	BASE BID																					
WATERLINE SYSTEM	1	8" PVC, Class 150, C900, DR 18. To include installation, sand bedding, gasket joints, trenching, backfill and etc. All complete, in place.	LF	3,400	$29.17	**$99,178.00**	$15.00	**$51,000.00**	$20.65	**$70,210.00**	$22.00	**$74,800.00**	$35.00	**$119,000.00**	$29.00	**$98,600.00**	$28.75	**$97,750.00**	$28.00	**$95,200.00**	$50.00	**$170,000.00**
	2	8" Gate Valve. To include installation, valve box, concrete block, wrapping and etc. All complete, in place.	EA	18	$1,500.00	**$27,000.00**	$2,100.00	**$37,800.00**	$1,950.00	**$35,100.00**	$1,300.00	**$23,400.00**	$2,000.00	**$36,000.00**	$1,500.00	**$27,000.00**	$1,985.50	**$35,739.00**	$2,100.00	**$37,800.00**	$1,500.00	**$27,000.00**
	3	8" X 8" Cross, C153, Class 350. To include installation, thrust block, joint restraint device, bolts, glands, gaskets and etc. All complete, in place.	EA	1	$400.00	**$400.00**	$875.00	**$875.00**	$750.00	**$750.00**	$750.00	**$750.00**	$1,000.00	**$1,000.00**	$2,300.00	**$2,300.00**	$675.50	**$675.50**	$1,200.00	**$1,200.00**	$800.00	**$800.00**
	4	8" X 8" Tee, C153, Class 350. To include installation, thrust block, joint restraint device, bolts, glands, gaskets and etc. All complete, in place.	EA	6	$300.00	**$1,800.00**	$750.00	**$4,500.00**	$600.00	**$3,600.00**	$600.00	**$3,600.00**	$1,000.00	**$6,000.00**	$1,250.00	**$7,500.00**	$460.50	**$2,763.00**	$950.00	**$5,700.00**	$600.00	**$3,600.00**
	5	8" X 6" Tee, C153, Class 350. To include installation, thrust block, joint restraint device, bolts, glands, gaskets and etc. All complete, in place.	EA	3	$350.00	**$1,050.00**	$642.00	**$1,926.00**	$550.00	**$1,650.00**	$600.00	**$1,800.00**	$1,000.00	**$3,000.00**	$1,650.00	**$4,950.00**	$460.50	**$1,381.50**	$850.00	**$2,550.00**	$550.00	**$1,650.00**
	6	8" - 90° Elbow C153 Class 350. To include installation, bolts, glands, gaskets, thrust block, restrained joints, and etc. All complete, in place.	EA	16	$320.00	**$5,120.00**	$500.00	**$8,000.00**	$550.00	**$8,800.00**	$850.00	**$13,600.00**	$500.00	**$8,000.00**	$760.00	**$12,160.00**	$415.50	**$6,648.00**	$750.00	**$12,000.00**	$500.00	**$8,000.00**
	7	To include bolts, joint restraint device, and etc. All complete, in place.	EA	8	$270.00	**$2,160.00**	$454.00	**$3,632.00**	$550.00	**$4,400.00**	$750.00	**$6,000.00**	$500.00	**$4,000.00**	$740.00	**$5,920.00**	$415.50	**$3,324.00**	$750.00	**$6,000.00**	$500.00	**$4,000.00**
	8	8" X 6" Reducer Class 350. To include installation. All complete, in place.	EA	2	$300.00	**$600.00**	$350.00	**$700.00**	$480.00	**$960.00**	$450.00	**$900.00**	$500.00	**$1,000.00**	$1,100.00	**$2,200.00**	$295.50	**$591.00**	$750.00	**$1,500.00**	$450.00	**$900.00**
	9	include fire hydrant, 6" gate valve, valve box, piping, concrete thrust block, joint restraint device, and etc. All complete, in place.	EA	5	$1,200.00	**$6,000.00**	$7,150.00	**$35,750.00**	$4,000.00	**$20,000.00**	$4,000.00	**$20,000.00**	$4,000.00	**$20,000.00**	$4,700.00	**$23,500.00**	$4,300.00	**$21,500.00**	$5,100.00	**$25,500.00**	$5,000.00	**$25,000.00**
	10	8" Ductile Iron Coupling with Fusion Applied Epoxy Coating. To include installation, connection to existing waterline, wrapping, sleeves, flanges, bolts, and etc. All complete, in place.	EA	6	$600.00	**$3,600.00**	$770.00	**$4,620.00**	$650.00	**$3,900.00**	$2,500.00	**$15,000.00**	$700.00	**$4,200.00**	$950.00	**$5,700.00**	$365.25	**$2,191.50**	$750.00	**$4,500.00**	$2,500.00	**$15,000.00**

ITEMIZED BID TABULATION SHEET

CITY OF WESLACO
Waterline Improvements Project
(Alleys/Streets between Oregon, Michigan and Iowa)
Urban County Bid No. 5015-80-0310-5000-8000-UCP-ML

	Item No.	Item Description	Unit	Est. Qty.	GA Construction		RDH Site and Concrete, LLC		Venser Contractors, LLC		PEGA JPS Utilities		The 5125 Company		GO Underground, LLC		Saenz Utility Contractors, LLC		Saenz Brothers Construction, LLC		Jimmy Closner & Sons Construction	
					Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
WATERLINE SYSTEM	11	6" Ductile Iron Coupling with Fusion Applied Epoxy Coating. To include installation, connection to existing waterline, wrapping, sleeves, flanges, bolts, and etc. All complete, in place.	EA	4	$500.00	$2,000.00	$625.00	$2,500.00	$600.00	$2,400.00	$2,500.00	$10,000.00	$500.00	$2,000.00	$900.00	$3,600.00	$355.25	$1,421.00	$650.00	$2,600.00	$2,300.00	$9,200.00
	12	Water Service Connection. To include service saddle, ¾" corporation stop, ¾" Polyethyelene Tubing, Curb Cock and cut & patch pavement if necessary. All complete, in place. (Connection to Curb Cock	EA	45	$650.00	$29,250.00	$600.00	$27,000.00	$585.00	$26,325.00	$600.00	$27,000.00	$500.00	$22,500.00	$650.00	$29,250.00	$950.25	$42,761.25	$1,000.00	$45,000.00	$1,000.00	$45,000.00
	13	PSI). To include reinforcing steel, preparation and installation. All complete, in place.	EA	7	$100.00	$700.00	$1,000.00	$7,000.00	$300.00	$2,100.00	$500.00	$3,500.00	$500.00	$3,500.00	$450.00	$3,150.00	$125.50	$878.50	$850.00	$5,950.00	$900.00	$6,300.00
	14	Repair of Existing Asphalt Pavement. To include 8" caliche base, 2" asphalt paving, prime coat, etc. All complete, in place.	SY	1,000	$7.14	$7,140.00	$21.50	$21,500.00	$37.25	$37,250.00	$35.00	$35,000.00	$25.00	$25,000.00	$29.00	$29,000.00	$14.50	$14,500.00	$30.00	$30,000.00	$18.00	$18,000.00
	15	Repair of Existing Asphalt Driveway. To include 8" caliche base, 2" asphalt paving, etc. All complete, in place.	SY	25	$7.14	$178.50	$21.50	$537.50	$37.25	$931.25	$35.00	$875.00	$60.00	$1,500.00	$33.00	$825.00	$18.50	$462.50	$95.00	$2,375.00	$18.00	$450.00
	16	Remove & Replace Existing Concrete Driveway. To include 4" thick concrete, reinforcing steel, saw cutting, and etc. All complete, in place.	SY	15	$33.30	$499.50	$50.00	$750.00	$75.00	$1,125.00	$68.00	$1,020.00	$60.00	$900.00	$78.00	$1,170.00	$175.50	$2,632.50	$300.00	$4,500.00	$80.00	$1,200.00
	17	18" Curb & Gutter. To include joints, saw cutting and reinforcing. All complete, in place.	LF	80	$25.00	$2,000.00	$16.00	$1,280.00	$14.00	$1,120.00	$32.00	$2,560.00	$20.00	$1,600.00	$21.00	$1,680.00	$65.50	$5,240.00	$60.00	$4,800.00	$20.00	$1,600.00
	18	Remove and Replace Existing 30" Valley Gutter. To include joints, saw cutting, and reinforcing. All complete, in	LF	6	$25.00	$150.00	$20.00	$120.00	$18.00	$108.00	$45.00	$270.00	$100.00	$600.00	$55.00	$330.00	$185.50	$1,113.00	$150.00	$900.00	$40.00	$240.00
	19	18" Valley Gutter. To include joints, saw cutting, and reinforcing. All complete, in place.	LF	30	$25.00	$750.00	$16.00	$480.00	$14.00	$420.00	$40.00	$1,200.00	$100.00	$3,000.00	$50.00	$1,500.00	$135.50	$4,065.00	$100.00	$3,000.00	$20.00	$600.00
	20	Remove and Replace 5' Concrete Sidewalk. To include wire mesh, contraction joints, etc. All complete, in place.	LF	50	$40.00	$2,000.00	$50.00	$2,500.00	$30.00	$1,500.00	$35.00	$1,750.00	$20.00	$1,000.00	$33.00	$1,650.00	$75.50	$3,775.00	$25.00	$1,250.00	$30.00	$1,500.00

ITEMIZED BID TABULATION SHEET

CITY OF WESLACO
Waterline Improvements Project
(Alleys/Streets between Oregon, Michigan and Iowa)
Urban County Bid No. 5015-80-0310-5000-8000-UCP-ML

	Item No.	Item Description	Unit	Est. Qty.	GA Construction		RDH Site and Concrete, LLC		Venser Contractors, LLC		PEGA JPS Utilities		The 5125 Company		GO Underground, LLC		Saenz Utility Contractors, LLC		Saenz Brothers Construction, LLC		Jimmy Closner & Sons Construction	
					Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
WATERLINE SYSTEM	21	**Trench Safety for Water Line Construction.** To include preparation of Trench Safety Plan. All complete, in place.	LS	1	$3,400.00	**$3,400.00**	$3,400.00	**$3,400.00**	$3,500.00	**$3,500.00**	$6,500.00	**$6,500.00**	$500.00	**$500.00**	$3,500.00	**$3,500.00**	$5,000.00	**$5,000.00**	$10,000.00	**$10,000.00**	$2,000.00	**$2,000.00**
	22	Construction Surveying for Water Line Installation. All complete.	LS	1	$3,000.00	**$3,000.00**	$1,500.00	**$1,500.00**	$3,500.00	**$3,500.00**	$5,500.00	**$5,500.00**	$977.77	**$977.77**	$4,500.00	**$4,500.00**	$6,000.00	**$6,000.00**	$5,500.00	**$5,500.00**	$1,500.00	**$1,500.00**
	23	Traffic Control to include Barricades, Signs, Detours, & Traffic Handling as per TXDot Manual of Uniform Traffic Control Devices, Latest Edition.	MO	4	$750.00	**$3,000.00**	$700.00	**$2,800.00**	$2,750.00	**$11,000.00**	$1,250.00	**$5,000.00**	$2,500.00	**$10,000.00**	$1,500.00	**$6,000.00**	$6,500.00	**$26,000.00**	$3,500.00	**$14,000.00**	$3,500.00	**$14,000.00**
	24	Soil Erosion and Sediment Control To include the development, implementation and maintenance of a storm water pollution prevention plan (SWP3) all in accordance with State and Federal Regulations, submission of Notice of Intent (NOI) and Submission of Notice of Termination (NOT). All complete, in place.	LS	1	$4,000.00	**$4,000.00**	$2,500.00	**$2,500.00**	$4,500.00	**$4,500.00**	$9,500.00	**$9,500.00**	$2,500.00	**$2,500.00**	$2,500.00	**$2,500.00**	$3,500.00	**$3,500.00**	$2,500.00	**$2,500.00**	$4,700.00	**$4,700.00**
		TOTAL PROJECT BID AMOUNT				**$204,976.00**		**$222,670.50**		**$245,149.25**		**$269,525.00**		**$277,777.77**		**$278,485.00**		**$289,912.25**		**$324,325.00**		#########

ITEMIZED BID TABULATION SHEET

CITY OF WESLACO
Waterline Improvements Project
(Alleys/Streets between Oregon, Michigan and Iowa)
Urban County Bid No. 5015-80-0310-5000-8000-UCP-ML

	Item No.	Item Description	Unit	Est. Qty.	GA Construction		RDH Site and Concrete, LLC		Venser Contractors, LLC		PEGA JPS Utilities		The 5125 Company		GO Underground, LLC		Saenz Utility Contractors, LLC		Saenz Brothers Construction, LLC		Jimmy Closner & Sons Construction	
					Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
PAVING (OREGON AVE.)	25	Scarify existing asphalt paving and base material and prepare existing base material for reuse. To include all scarifying, break down of existing asphalt pavement, mixing, watering of existing base materials, reshaping and compaction to final grade. All complete in place (Total reused base thickness shall be 6" minimum)	SY	1,400		$0.00	$5.00	$7,000.00	$3.00	$4,200.00	$10.00	$14,000.00	$5.00	$7,000.00	$11.00	$15,400.00	$6.75	$9,450.00	$6.00	$8,400.00	$8.00	$11,200.00
	26	Lime Stabilization of 6" thick existing caliche salvaged base with 1% lime (5 lbs/sy). To include all mixing, watering and compaction, etc. All complete in place.	SY	1,400		$0.00	$3.00	$4,200.00	$3.80	$5,320.00	$6.00	$8,400.00	$3.00	$4,200.00	$7.00	$9,800.00	$3.00	$4,200.00	$3.00	$4,200.00	$7.00	$9,800.00
	27	Prime Coat (.20 gal/sy). All complete in place.	SY	1,400		$0.00	$2.00	$2,800.00	$2.00	$2,800.00	$3.00	$4,200.00	$1.00	$1,400.00	$4.00	$5,600.00	$3.25	$4,550.00	$1.25	$1,750.00	$1.30	$1,820.00
	28	1 ½ inch type "D" Hot Mix Asphalt Concrete Pavement (165 lbs/sy). To include compaction. All complete in place.	SY	1,400		$0.00	$11.00	$15,400.00	$11.00	$15,400.00	$11.00	$15,400.00	$9.00	$12,600.00	$12.50	$17,500.00	$8.05	$11,270.00	$12.00	$16,800.00	$10.00	$14,000.00
PAVING (MICHIGAN AVE.)	29	Scarify existing asphalt paving and base material and prepare existing base material for reuse. To include all scarifying, break down of existing asphalt pavement, mixing, watering of existing base materials, reshaping and compaction to final grade. All complete in place.(Total reused base thickness shall be 6" minimum).	SY	1,200		$0.00	$5.00	$6,000.00	$3.00	$3,600.00	$10.00	$12,000.00	$5.00	$6,000.00	$10.00	$12,000.00	$6.85	$8,220.00	$6.00	$7,200.00	$8.00	$9,600.00
	30	Lime Stabilization of 6" thick existing caliche salvaged base with 1% lime (5 lbs/sy). To include all mixing, watering and compaction, etc. All complete in place.	SY	1,200		$0.00	$3.00	$3,600.00	$3.80	$4,560.00	$6.00	$7,200.00	$3.00	$3,600.00	$7.00	$8,400.00	$3.00	$3,600.00	$3.00	$3,600.00	$7.00	$8,400.00
	31	Prime Coat (.20 gal/sy). All complete in place.	SY	1,200		$0.00	$2.00	$2,400.00	$2.00	$2,400.00	$3.00	$3,600.00	$1.00	$1,200.00	$4.00	$4,800.00	$3.25	$3,900.00	$5.00	$6,000.00	$1.30	$1,560.00
	32	1 ½ inch type "D" Hot Mix Asphalt Concrete Pavement (165 lbs/sy). To include compaction. All complete in place.	SY	1,200		$0.00	$11.00	$13,200.00	$11.00	$13,200.00	$11.00	$13,200.00	$9.00	$10,800.00	$12.50	$15,000.00	$8.05	$9,660.00	$12.00	$14,400.00	$10.00	$12,000.00
		TOTAL ALTERNATE BID AMOUNT				**$0.00**		**$54,600.00**		**$51,480.00**		**$78,000.00**		**$46,800.00**		**$88,500.00**		**$54,850.00**		**$62,350.00**		#########

AI-56057 **Urban County** **9. K.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Subject to Compliance with HB 1295, when and if Applicable, the Urban County Program on behalf of the City of Hidalgo is requesting approval of a best and final negotiated contract for professional engineering services with Hinojosa Engineering, Inc., in the amount of $60,070.00 utilizing CDBG FY 26 (2013) La Joya Street Improvement funds.

2. Requesting approval of Work Authorization No. 1- La Joya 2014 Street Improvements in the amount of $60,070.00.

BACKGROUND

Hidalgo County Commissioner's Court approved authority to negotiate contract with the firm of Hinojosa Engineering, Inc. for the purpose of professional engineering services for the 2014 Street Improvements Project. See attached negotiated contract and Work Authorization No. 1.

Contract Amount: $60,070.00

Available Funds: $136,660.89 2013 Street Improvements

Fiscal Impact

FISCAL YEAR: **ACCT. #:**

FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

UCP funds.

Attachments

La Joya Street Improvements Work Authorization & Insurance

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	08/25/2016 04:48 PM
Ivan Cantu	Ivan Cantu	08/26/2016 02:16 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Olga Lerma		Started On: 08/25/2016 03:20 PM
Final Approval Date: 09/09/2016		

HINOJOSA ENGINEERING, INC. Structural Engineering • Civil Engineering • Land Surveying
REGISTRATION NUMBER F-908 EXPIRATION DATE 09/30/2016

Urban County Program
Guadalupe V. Garcia
UCP Coordinator II
Pharr, Texas 78577

August 24, 2016

Re: City of La Joya 2014 Street Improvements

Hinojosa Engineering is willing to accept for Civil Engineering Services $45,550.00 (Forty-five Thousand Five Hundred and Fifty-five Dollars), Surveying Services $14,520.00 (Fourteen Thousand Five Hundred and Twenty Dollars) , for a total fee of $60,070.00 (Sixty Thousand Seventy dollars, as our best and Final offer.

Hinojosa Engineering, Inc. would like to thank you for considering our firm for this important project.

If you should have any questions, please do not hesitate to contact my office at (956)581-0143.

Respectfully Submitted,
Hinojosa Engineering, Inc.

Ricardo Hinojosa, P.E.
President

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT is made effective the **13th day of September, 2016** by and between **HIDALGO COUNTY, TEXAS, acting by and thru Urban County Program** ("County") and **Hinojosa Engineering, Inc.** of Mission, a Texas Corporation ("Engineer").

WITNESSETH:

WHEREAS, the County is vested with the responsibility of providing **"Engineering Services"** for projects with **HIDALGO COUNTY URBAN COUNTY PROGRAM** (the "Services");

WHEREAS, the County has determined that the services of a professional engineering company is necessary to carry out the required Services;

WHEREAS, pursuant to Texas Government Code Chapter 2254.002, (the "Texas Professional Services Procurement Act"), the County requested Statements of Qualifications (SOQ's) from a professional engineering to assist the County by providing the Services;

WHEREAS, Urban County Program has selected the "Engineer" from the "Pool" of pre-qualified Engineering from response to the Request for Qualifications (RFQ) to provide the Services for the **City of La Joya- Street Improvements Project**

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, County and Engineer do mutually agree as follows:

1. **Scope of Services.** The County will provide to Engineer the services described in **Exhibit "A"** attached hereto and entitled "Services to be performed by County." Engineer agrees to provide to County with the work described in Exhibit "B", "Services to be performed by the Engineer".

2. **Non-Exclusive Services of Engineer.** Hidalgo County reserves the right to request these services from other sources other than the Engineer and shall not be in violation of any terms or conditions of this Agreement.

3. **Term.** This Agreement is for a period of **one (1) year**, effective **September 13, 2016,** and will expire **September 13, 2017** or unless sooner terminated as provided herein. The Engineer will not begin to work or incur costs until authorized in writing by the County with each "Work Authorization" particularly described in Exhibit "D".

4. **Compensation.** As consideration for rendering the Services provided for in this Agreement, the County agrees to pay the Engineer the amounts specified in Exhibit "C" attached hereto payable against written invoice submitted by Engineer. The maximum amount payable under this Agreement shall not exceed the amount for each work authorization unless an amendment is executed as provided hereinafter. The Engineer shall submit periodic requests for payment within (30) thirty days after completion of each Work Authorization. The request for payment shall be made using forms acceptable to the County and shall show the total amount earned to the date of submission and the amount due and payable as of the date of the current billing. Upon receipt of said request for payment, County shall submit a requisition for payment for said Services in the customary manner provided for payments utilized by Hidalgo County, Texas. Engineer agrees to separately account for the receipt and/or expenditure of funds received pursuant to this Agreement and to keep accurate books and records of all such receipts and/or expenditures. All payments to Engineer shall be mailed to the address shown in numbered paragraph 24 herein.

5. **Inspection of Work.** The County has the right at all reasonable times to inspect or otherwise evaluate the work performed hereunder and the premises in which it is being performed. If any inspection or evaluation is made on the premises of the Engineer, or of a subcontractor, the Engineer shall provide and require its subcontractor to provide all reasonable facilities and assistance for the safety and convenience of the inspectors in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay their work.

6. Amendments. If it becomes necessary at any time during this Agreement to change the scope of Services, the Agreement period, the maximum amount payable, the complexity, or the character of this Agreement, an amendment shall be executed by use of a (Supplemental Agreement Form) more particularly described in Exhibit "E" within the agreement. The County retains the right to reject any such amendment proposed by the Engineer. Any such amendments shall be made in writing, agreed to by all parties hereto, and duly executed before the end of the Agreement as specified. If the County finds it necessary to require changes in completed work because of errors made by the Engineer, the County shall require the Engineer to correct the work at no cost to the County and without amendment to the Agreement. If the changes are made at the request of the County and are not due to errors of the Engineer, the County will reimburse the Engineer for the additional work at the same rate of pay established in Exhibit "C," "Engineer's Rates." If payment for the additional work will cause the maximum amount payable under this Agreement to be exhausted, an amendment shall be proposed in accordance with all State procurement laws.

7. Reporting. The Engineer shall promptly advise the County in writing of events which have a significant impact upon the Agreement, including:

a. Problems, delays, or adverse conditions which will materially affect the ability to meet time schedules and goals, or preclude the attainment of project work units by established time periods. This disclosure shall be accompanied by a statement of the action taken, or contemplated and any County or, if Federal Funds are involved, Federal assistance needed to resolve the situation.

b. Favorable developments or events which enable meeting time schedules and goals to be met sooner than anticipated or which are producing more work units than originally projected.

8. Ownership of Documents. Upon completion or termination of this Agreement, all documents prepared by the Engineer or furnished to the Engineer by the County shall be delivered to and become the property of the County. All sketches, photographs, calculations, and other data prepared

under this Agreement shall be made available, upon request, to the County without restriction or limitation on their further use. The Engineer may, at its own expense, have copies made of the documents or any other data furnished to the County under this Agreement.

9. Suspension of Work. Should County desire to suspend the work under this Agreement, but not terminate this Agreement, the County shall provide thirty (30) calendar days verbal notification to Engineer, followed by written confirmation from the County to Engineer to that effect. The thirty-day notice may be waived as agreed in writing by both the County and Engineer to that effect. The work under this Agreement may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the County to the Engineer. The sixty-day notice may be waived as agreed in writing by both the County and Engineer. If the County suspends the work, the Termination Date as identified above is not affected and this Agreement will terminate on the date specified.

10. Progress and Coordination. The Engineer shall, from time to time during the progress of the work, confer with the County. The Engineer shall prepare and present such information as may be pertinent and necessary, or as may be requested by the County, in order to evaluate features of the Engineer's services and work.

At the request of the County or the Engineer, conferences shall be provided at the Engineer's office, the offices of the County, or at other locations designated by the County. These conferences shall also include evaluation of the Engineer's services and work when requested by the County.

All applicable study reports shall be submitted in preliminary form for approval by the County before the final report is issued. The County's comments regarding the Engineer's preliminary report will be addressed by the Engineer in the final report.

If funds by other agencies or entities are to be used for the development of the project under this Agreement, the Engineer's Services and work will be subject to periodic review and approval by other agencies or entities, including those of the city, county, state and/or federal agencies.

Should it be determined that the progress in the production of the Engineer's Services and work does not satisfy the requirements of the approved Work Authorization as provided by Exhibit "D",

attached hereto, the County shall review the approved Work Authorization with the Engineer to determine the corrective action needed by either the County or the Engineer.

The Engineer shall promptly advise the County in writing of events which have a significant impact upon the progress of the Engineer's Services and work and the approved Work Schedule, including:

a. problems, delays, adverse conditions which will materially affect the ability to attain Agreement objectives, prevent the meeting of time schedules and goals, or preclude the timely completion and submittal of Project deliverables by the Engineer within established time periods; this disclosure will be accompanied by a statement by the Engineer of recommended or immediate action taken, or contemplated, and any Owner or other agency or entity assistance needed to resolve the situation: and

b. favorable developments or events which enable meeting the Work Schedule goals sooner than anticipated.

11. Independent Contractor. Engineer must comply with all applicable Hidalgo County policies and with any applicable federal, state or local laws, regulations, orders or ordinances applicable to the Services provided by Engineer under this Agreement. Notwithstanding the foregoing sentence, Engineer represents and maintains that it is an Independent Contractor and is not an employee of Hidalgo County, Texas or any agency thereof, and represents and warrants that it does not desire or request any fringe benefits provided to employees of Hidalgo County, Texas, and/or any agency thereof, including, but not limited to benefits associated with Hidalgo County's civil service program. Engineer agrees to be responsible for any federal income tax, withholding or social security tax liability that might arise from payments received hereunder.

12. Subcontracting and Assignment. The Engineer shall not assign subconsultant or transfer the Engineer's interest in this Agreement without the prior written consent of the County. The Engineer shall bind every subconsultant by written agreement to observe all the terms of this Agreement

to the extent that they may be applicable to each subconsultant. No subcontractor relieves the Engineer of any responsibilities under this Agreement.

13. Voluntary Termination. County may terminate this Agreement at any time for any reason or no reason at all upon giving thirty (30) days prior written notice to the Engineer.

14. Insurance. Engineer agrees to provide liability insurance covering its activities in providing the Services for County in an amount not less than the minimum amounts prescribed by the Texas Tort Claims Act, §100.001, et seq., Texas Civil Practices and Remedies Code, and shall furnish County a certificate issued by the insurer that such insurance is in full force and effect.

15. Payment of Franchise Tax. The Engineer hereby certifies that the Engineer is not delinquent in Texas franchise tax payments, or that the Engineer is exempt from, or not subject to, such tax. A false statement concerning corporation's franchise tax status shall constitute grounds for termination of the Agreement at the sole option of the County.

16. No Assignment. Except as otherwise herein provided, Engineer may not assign the obligations or rights under this Agreement to any person without the prior written consent of County.

17. Conflict. Nothing in this Agreement shall be construed so as to require the commission of any act contrary to law, and whenever there is any conflict between any provision of this Agreement and any present or future law, ordinance or administrative, executive or judicial regulation, order or decree, or amendment thereof, contrary to which the parties have no legal right to Agreement, the latter shall prevail, but in such event the affected provision or provisions of this Agreement shall be modified only to the extent necessary to bring them the legal requirements and only during the time such conflict exists.

18. Termination by County. If Engineer fails to deliver quality Services, fails to achieve the defined goals, outcomes, strategies and outputs required by County, or if Engineer fails to comply with any conditions in this Agreement, then County shall have the right to terminate this Agreement upon the giving of ten (10) days prior written notice to Engineer.

19. No Waiver. No waiver by County of any breach of any provision of this Agreement shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision hereof.

20. Entire Agreement. This Agreement contains the entire agreement between the parties hereto, and each party acknowledges that neither has made (either directly or through any agent or representative) any representations or agreements in connection with this Agreement not specifically set forth herein. This Agreement may be modified or amended only by agreement in writing executed by County and Engineer, and not otherwise.

21. Venue. This Agreement shall be construed under and in accordance with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Hidalgo County, Texas. The parties hereby consent to personal jurisdiction in Hidalgo County, Texas.

22. Hold Harmless. In the event Engineer should cause, either directly or indirectly, damage, loss, destruction, liability, or claims against the other party as a result of intentional conduct, negligence or otherwise, Engineer shall hold harmless and indemnify County from any and all obligations, liabilities, cause of action, lawsuits, damages, and assessments, including legal fees, etc., that from the Engineer's intentional actions or negligence. This indemnification clause shall survive this Agreement and be enforceable as a separate agreement in the event its survival and enforcement becomes necessary.

23. Attorney's Fees. In the unlikely event that a dispute occurs which is litigated, or a cause of action in law or equity is filed concerning the operation, construction, interpretation, or enforcement of this Agreement, the losing party shall bear the cost of the attorney's fees incurred by the prevailing party and any and all costs applicable thereto, including, but not limited to, court costs, deposition fees, expert witness fees, out-of-pocket expenses and travel expenses which are incurred by the prevailing party.

24. Notices. Expect as may be otherwise specifically provided in this Agreement, all notices, demands, requests or communications required or permitted hereunder shall be in writing and shall either be (i) personally delivered against a written receipt, or (ii) sent by a registered or certified mail, return

receipt requested, postage prepaid and addressed to the parties at the addresses set forth below, or at such other addresses as may have been theretofore specified by written notice delivered in accordance herewith:

If to County: **Hidalgo County Urban County**
Attn: Diana R. Serna, UCP Director
427 East Duranta Avenue, Suite 107
Alamo, Texas 78516

If to Engineer: **Hinojosa Engineering, Inc.**
Attn: W. Ricardo Hinojosa P.E., Owner
108 W.18th Street
Mission, Texas 78572

Each notice, demand, request or communication which shall be delivered or mailed in the manner described above shall be deemed sufficiently given for all purposes at such time as it is personally delivered to the addresses or, if mailed at such time as it is deposited in the United States mail.

25. Executions of Documents. The parties hereto covenant and agree that they will execute such other and further instruments and documents as are or may become necessary or convenient to effectuate and carry out the terms of this Agreement.

26. Binding Agreement. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, legal representatives, successors, and assigns where permitted by this Agreement.

27. Gender. All pronouns used in this Agreement shall include the other gender, whether used in the masculine, feminine or neutral gender, and the singular shall include the plural whenever and as often as may be appropriate.

28. Authority. The execution and performance of this Agreement by County and Engineer have been duly authorized by all necessary laws, resolutions or corporate action, and this Agreement constitutes the valid and enforceable obligations of County and Engineer in accordance with its terms.

29. Professional Seal. All documents and data furnished by the Engineer to the County shall bear Professional seal of a licensed Engineer employed by the Engineer.

30. Commitment of Current Revenues Only. In the event that, during any term hereof, the Commissioners Court does not appropriate sufficient funds to meet the obligations of County under this Agreement, County may terminate this Agreement upon ninety (90) days written notice to the Engineer. County agrees, however, to use reasonable efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of County pursuant to the provisions of Tex. Loc. Govt. Code Ann. ' 271.903 (Vernon Supp. 1996).

31. Immunities. Nothing in this Agreement is intended to and County does not hereby waive, release or relinquish any right to assert any of the defenses County enjoys by virtue of the state or federal constitution, laws, rules or regulations, and any sovereign, official or qualified immunity available to County as to any claim or action of any person, entity, or individual against County.

EXECUTED as of the day and year first written above.

HIDALGO COUNTY

By: _____
Ramon Garcia, County Judge

ATTEST:

_____
Arturo Guajardo Jr., County Clerk

Approved by Commissioners' Court on: September 13, 2016.

ENGINEER:
Hinojosa Engineering, Inc.

By: _____

Printed Name W. Ricardo Hinojosa P.E.

Title: Owner

APPROVED AS TO FORM:
Atlas, Hall & Rodriguez, L.L.P.
By: Stephen L. Crain, Attorney
On this: July 12, 2016.

ATTACHMENTS:

EXHIBIT A	-Scope of Services to be provided by the County
EXHIBIT B	-Scope of Services to be provided by the Engineer
EXHIBIT C	-Engineer's Rates
EXHIBIT D	-Work Authorization Form
EXHIBIT E	-Supplemental Agreement Form
EXHIBIT F	-Certificates of Insurance

EXHIBIT A

-Scope of Services to be provided by the County

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

General:

The Owner will provide to the Engineer the following:

1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.
2) Payment for work performed by the Engineer and accepted by the Owner in accordance with Article 3 of this Agreement.
3) Assistance to the Engineer, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Engineer cannot easily obtain.
4) Provide any available relevant data the Owner may have on file concerning the projects.
5) Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed upon work schedule prepared in accordance with Exhibit "A" attached to this Agreement.
6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.

EXHIBIT "B"

Scope of Services to be provided by the Engineer

(Description of Services)

City of La Joya 2014 Street Improvements

Hinojosa Engineering, Inc. will provide Civil and Surveying Services that consists of the design of the improvement of streets in La Joya, Texas to include professional engineering services as they pertain to project completion of 11th, 12th, 13th, 14th, Vela/Jackson Street, Peralez/Martinez Street, Gonzalez Street, Alaniz Street, and Elizabeth Street, in La Joya, Texas.

Exhibit "C"

Hinojosa Engineering, Inc.

Structural • Civil • Surveying

HOURLY RATES FOR 2016

1. Principal	$180.00/HR.
2. Project Manager	$150.00/HR.
3. Engineer	$140.00/HR.
4. EIT Engineer/Intern	$125.00/HR.
5. CADD Technician	$ 75.00/HR.
6. RPLS	$120.00/HR.
7. Survey Crew	$100.00/HR.
8. Clerical	$ 55.00/HR.

EXHIBIT D
-Work Authorization Form

HIDALGO COUNTY
Professional Engineering Services

WORK AUTHORIZATION NO. _____

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **Hinojosa Engineering, Inc.** professional engineers of **Mission,** Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK
The purpose of this Work Authorization is for the "engineering services" to provide **Professional Engineering Services**.

The scope of services to be provided by the **Owner** is identified in **EXHIBIT "A" – Scope of Services to be provided by the Owner** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **EXHIBIT "B" – Scope of Services to be provided by the Engineer** attached hereto.

PART 2. ESTIMATED COST
The estimated cost for services under this Work Authorization is **$60, 070.00**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D".**

PART 3. PAYMENT
Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/Section **4** of the Agreement.

PART 4. FUNDING
This Work Authorization No. **1** shall be funded through funding source:
Account No. 5014-40-0311-5000-4000-UCP-GVG
Purchase Order Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE
This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate **upon completion of scopes of the work authorization**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS
This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION
Acknowledgement and Confirmation by Hidalgo County Urban County Program, Diana Serna (Director) as to content and detail of this **Work Authorization No. 1 .**

HIDALGO COUNTY
URBAN COUNTY PROGRAM

BY: _____
Diana R. Serna, Director

PART 8. ACCEPTANCE AND APPROVAL
This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on **September 13, 2016** as indicated below and effective as of **13th day of September, 2016 .**

THE ENGINEER:
HINOJODS ENGINEERING, INC.

_____
By: Ricardo Hinojosa, P.E Owner

THE OWNER:
HIDALGO COUNTY

_____
By: Ramon Garcia, County Judge

ATTEST:

_____
Arturo Guajardo Jr., County Clerk

EXHIBIT A

-Scope of Services to be provided by the County

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

General:

The Owner will provide to the Engineer the following:

1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.
2) Payment for work performed by the Engineer and accepted by the Owner in accordance with Article 3 of this Agreement.
3) Assistance to the Engineer, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Engineer cannot easily obtain.
4) Provide any available relevant data the Owner may have on file concerning the projects.
5) Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed upon work schedule prepared in accordance with Exhibit "A" attached to this Agreement.
6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.

EXHIBIT "B"

Scope of Services to be provided by the Engineer

(Description of Services)

City of La Joya 2014 Street Improvements

Hinojosa Engineering, Inc. will provide Civil and Surveying Services that consists of the design of the improvement of streets in La Joya, Texas to include professional engineering services as they pertain to project completion of 11th, 12th, 13th, 14th, Vela/Jackson Street, Peralez/Martinez Street, Gonzalez Street, Alaniz Street, and Elizabeth Street, in La Joya, Texas.

EXHIBIT "C"

WORK SCHEDULE

Project – City of La Joya 2014 Street Improvements

Client – City of La Joya

Project # - 16-153

Task	Estimate Schedule
1. Preliminary Investigation Report	August 23, 2016
2. 100% Final Investigation Report	September 9, 2016
3. Schematic Design	September 23, 2016
4. Design Development	October 7, 2016
5. Construction Document 30%	October 21, 2016
6. Construction Document 60%	November 04, 2016
7. Construction Document 100%	November 18, 2016
8. Advertisement for Bid	To be established by Owner
9. Bid Closed	To be established by Owner
10. Review Bids and present to County Commission	To be established by Owner
11. Pre Construction Meeting	To be established by Owner
12. Construction Phase	March 31, 2017

"Exhibit "D"

Exhibit "D" Engineer's Estimate of Probable Costs Date: August 24, 2016
Prepared For: City of La Joya 2014 Street Improvements

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE		UNIT TOTAL
11th Street from Peralez Ramirez to Leo Avenue						
1	1.5 HMAC Payment Overlay	2,295	SY	$17.00	=	$39,015.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$42,915.00**
11th Street from Peralez Ramirez to Garza Avenue						
1	1.5 HMAC Payment Overlay	2,747	SY	$17.00	=	$46,699.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$50,599.00**
12th Street from Peralez Ramirez to Leo Avenue						
1	1.5 HMAC Payment Overlay	1,464	SY	$17.00	=	$24,888.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$28,788.00**
13th Street from Gonzalez Avenue to Leo Avenue						
1	1.5 HMAC Payment Overlay	930	SY	$17.00	=	$15,810.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$19,710.00**
13th Street from Peralez Ramirez to						
1	1.5 HMAC Payment Overlay	1,742	SY	$17.00	=	$29,614.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$33,514.00**

TOTAL **$175,526.00**

Engineer's Estimate of Probable Costs
Prepared For: City of La Joya

Date: August 24, 2016

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE		UNIT TOTAL
12th Street from Peralez Martinez to						
1	1.5 HMAC Payment Overlay	1,270	SY	$17.00	=	$21,590.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$25,490.00**
14th Street from Peralez Martinez to Gonzalez Avenue						
1	1.5 HMAC Payment Overlay	1,197	SY	$17.00	=	$20,349.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$24,249.00**
Gonzalez Avenue form 12th Street to Military Highway						
1	1.5 HMAC Payment Overlay	2,862	SY	$17.00	=	$48,654.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
					=	
				Subtotal		**$52,554.00**
Alaniz Street form 12th Street to 13th Street						
1	1.5 HMAC Payment Overlay	1,182	SY	$17.00	=	$20,094.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$23,994.00**
Elizabeth Street form Military Highway to						
1	1.5 HMAC Payment Overlay	1,073	SY	$17.00	=	$18,241.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$22,141.00**

TOTAL $148,428.00

Engineer's Estimate of Probable Costs
Prepared For: City of La Joya

Date: August 24, 2016

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE		UNIT TOTAL
Vela Jackson from Military Highway						
1	1.5 HMAC Payment Overlay	2,540	SY	$17.00	=	$43,180.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$47,080.00**
Peralez Martinez form Military Highway to						
1	1.5 HMAC Payment Overlay	3,975	SY	$17.00	=	$67,575.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$71,475.00**
11th Street from Peralez Martinez to Vela Jackson						
1	1.5 HMAC Payment Overlay	1,611	SY	$17.00	=	$27,387.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$31,287.00**
Vela Jackson from						
1	1.5 HMAC Payment Overlay	1,278	SY	$17.00	=	$21,726.00
2	Striping	1	LS	$900.00	=	$900.00
3	Site Preparation/Mobilization	1	LS	$3,000.00	=	$3,000.00
				Subtotal		**$25,626.00**

TOTAL **$175,468.00**

EXHIBIT E
-Supplemental Agreement Form

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

SUPPLEMENTAL AGREEMENT NO. ____
TO AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

THIS SUPPLEMENTAL AGREEMENT is made pursuant to the terms and conditions of paragraph 5 of the Agreement made by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and **Hinojosa Engineering, Inc.** Professional Engineers of, **Mission,** Texas, hereinafter called the "**Engineer**".

WITNESSETH

WHEREAS, the **Owner** and the **Engineer** executed the **Agreement** on the _____ day of _____ **2016** concerning Engineering for **Professional Engineering Services** hereinafter referred to as the ("**Project**"); and,

WHEREAS, Paragraph ___ of the **Agreement**, (paragraph title), establishes _____; and,

WHEREAS, it has become necessary to amend the Agreement to _____

A. AGREEMENT

NOW THEREFORE, premises considered, the **Owner** and the **Engineer** agree that said **Agreement** is amended as follows:

I. Paragraph ___ of the **Agreement**, (paragraph title), is revised to

_____
_____
_____
_____
_____
_____

All other provisions are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the Engineer and the Owner have caused this Supplemental Agreement to the Agreement for Professional Services to be executed as of the _____ day of _____, 20__.

THE ENGINEER:
Hinojosa Engineering, Inc.

_____
By: W. Ricardo Hinojosa, P.E., Owner

THE OWNER:
HIDALGO COUNTY

_____
By: Ramon Garcia, County Judge

ATTEST:

_____
Arturo Guajardo Jr., County Clerk

LIST OF ATTACHMENTS

(as required)

Exhibit "F"

HINOENG-01 CANPA1

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 8/23/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:
Shepard Insurance Agency 5801 N 10th St Ste 600 McAllen, TX 78504	PHONE (A/C, No, Ext): (956) 686-3888 FAX (A/C, No): (956) 682-5650 E-MAIL ADDRESS: shepard@shepins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Acadia Insurance Co	31325
INSURER B : Continental Western Ins Co	10804
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

Hinojosa Engineering Inc
108 W 18th St
Mission, TX 78572

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [ ] PRO-JECT [ ] LOC OTHER:			CPA4672413-12	08/21/2016	08/21/2017	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS X HIRED AUTOS SCHEDULED AUTOS X NON-OWNED AUTOS			CPA4672413-12	08/21/2016	08/21/2017	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			CUA4672414-12	08/21/2016	08/21/2017	EACH OCCURRENCE AGGREGATE Pers/Adv Injury	$ 5,000,000 $ $ 5,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N [ ] N/A If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Hidalgo County Urban County Program
1916 Tesoro Street
Pharr, TX 78577

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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Exhibit "F"

Policy Number:

Date Entered: 08/23/2016

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/23/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Davis Insurance Agency 2030 E. Griffin Parkway Mission, Texas 78572	CONTACT NAME: Carl Davis PHONE (A/C, No, Ext): (956) 581-9838 FAX (A/C, No): (956) 519-1524 E-MAIL ADDRESS: davisinsuranceagency@yahoo.com
INSURED Hinojosa Engineering, Inc. 108 W. 18th St. Mission, TX 78572	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: TEXAS MUTUAL INSURANCE ASSOCIATION INSURER B: HCC Specialty Insurance Company INSURER C: INSURER D: INSURER E: INSURER F:

COVERAGES — CERTIFICATE NUMBER: — REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC OTHER:						EACH OCCURRENCE	$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
							PRODUCTS - COMP/OP AGG	$
								$
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS HIRED AUTOS SCHEDULED AUTOS NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident)	$
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: Y If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	0001296035	10/23/2015	10/23/2016	X PER STATUTE OTH-ER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
B	PROFESSIONAL LIABILITY			HSI1620146	02/15/2016	02/15/2017	CLAIMS MADE	1,000,000
							AGGREGATE	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
Hidalgo County Urban County Program 1916 Tesoro Street Pharr, Texas 78577	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE W. Carl Davis

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CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-103337

Date Filed:
08/23/2016

Date Acknowledged:
08/24/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Hinojosa Engineering, Inc.
Mission, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo County Urban County Program

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

5014-40-0311-5000-4000
La Joya 2014 Street Improvements

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-103337

Date Filed:
08/23/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Hinojosa Engineering, Inc.
Mission, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Hidalgo County Urban County Program

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
5014-40-0311-5000-4000
La Joya 2014 Street Improvements

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

MAYELA G. DUQUE
MY COMMISSION EXPIRES
January 13, 2018

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Ricardo Hinojosa, this the 24th day of Agust, 2016, to certify which, witness my hand and seal of office.

Signature of officer administering oath | Mayela G. Duque — Printed name of officer administering oath | Secretary — Title of officer administering oath

AI-56048 **Urban County** **9. L.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Olga Lerma, URBAN COUNTY **Submitted By:** Olga Lerma, URBAN COUNTY

Department: URBAN COUNTY

Information

CAPTION

1. Requesting exemption from competitive bidding requirements under the Texas Local Government Code 262.024 (a)(4) for professional engineering services;

2. Presentation of the scoring grid for the purposes of ranking by CC of at least three (3) engineering firms from the County's approved "pool" as graded and evaluated by the City of Peñitas, Urban County Program, and Hidalgo County Purchasing Department, in connection with and funded through Hidalgo County Urban County Program Year 27 (2014) Peñitas Street Improvement funds.

Professional Service Firm	Grade	Ranked
Raba-Kistner Consultants, Inc	97.67%	
Millennium Engineering Group	89.33%	
Terracon Consultants, Inc.	88.00%	

3. Authority to negotiate a professional engineering service contract with the No. 1 ranked firm of _____
for the provision of material testing services for an Urban County Program Year 27 (2014) Peñitas, Street Improvements project.

BACKGROUND

Project consists of material testing services for the new construction of La Joya Avenue and Pike Avenue including surrounding and abutting streets within the same general vicinity of El Rio Subdivision in Peñitas, Texas 78576.

Fiscal Impact

Attachments

City of Peñitas Scoring Grid

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	08/25/2016 02:58 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Olga Lerma Started On: 08/25/2016 01:35 PM

Final Approval Date: 09/09/2016

City of Peñitas
Professional Engineering-Material Testing Services
2014-Street Improvements
Grading-Ranking Grid

Criteria	Raba-Kistner Consultants, Inc.			Millennium Engineering Group			Terracon Consultants, Inc.		
	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
Professional Qualifications of Team	24	25	24	25	25	18	23	25	22
Experience of Project Team	19	20	20	20	20	16	18	20	18
Experience/ Availability of Project Manager	19	20	20	19	20	16	18	20	17
Understanding of Project	24	24	25	25	21	22	21	21	21
Familiarity with Applicable Rules & Regulations	9	10	10	10	3	8	9	3	8
TOTALS	95	99	99	99	89	80	89	89	86
AVERAGES	293 % 3 = 97.67%			268 % 3 = 89.33%			264 %3 = 88%		
RATING									

EXHIBIT "B"

Evaluation Criteria and Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services- Construction Materials Geo Technical Testing Work"
RFQ NO: 2016-003-02-17-HGO

RECEIVED
AUG 25 2016
Hidalgo County Urban County Program

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	TOTAL	24
Good information lots of detail, possibly too much info		
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	TOTAL	19
Good staff, don't know who would work on project.		
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points:	TOTAL	19
Good information.		
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	TOTAL	24
Good responses to all info.		
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	4
Comments/Rationale for points:	TOTAL	9
Past experience acceptable. Narrative different to local.		
	TOTAL SCORE:	95

Project Name: 2014 Peñitas Street Improvements
Department: Hidalgo County Urban County Program
Firm/Participant: Name: Raba-Kistner Consultants
Evaluator: O. Romero - City of Peñitas Date: 8/23/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points: Meets most criteria but must Address Appropriate and applicable rules & Regs	TOTAL	24
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	10
	TOTAL SCORE:	99

Project Name: 2014 Peñitas Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant Name: Raba-Kistner Consultants

Evaluator: Antonio Dueo Date: 8-24-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	**TOTAL**	**24**
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	**TOTAL**	**20**
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	**TOTAL**	**20**
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	**TOTAL**	**25**
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points:	**TOTAL**	**10**
	TOTAL SCORE:	**99**

Project Name: Penitas 2014 Street Improvements

Department:: Urban County

Firm/Participant: Name: Raba Kistner

Evaluator: Heidi Garcia Ortiz Date: 08-23-16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	TOTAL	25
Good straight forward information		
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points:	TOTAL	20
Team has good knowledge and experience.		
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	9
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points:	TOTAL	19
Project flow easy to follow and recognize.		
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	5
Comments/Rationale for points:	TOTAL	25
Prior projects demonstrate understanding of project.		
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	5
Comments/Rationale for points:	TOTAL	10
Good prior gov't experience.		
	TOTAL SCORE:	99

Project Name: 2014 Peñitas Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Millennium Engineering Group

Evaluator: O. Romero - City of Penitas Date: 8/23/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets All criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points: Must address Knowledge of Appropriate rules and regulations	TOTAL	21
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	0
Comments/Rationale for points: Did not include Narrative of applicable rules and regulations or past experience.	TOTAL	3
	TOTAL SCORE:	89

Project Name: 2014 Peñitas Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Millennium Engineering Group

Evaluator: Antonio Baeza Date: 8-24-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	6
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	8
➢ A list of various projects for comparative purposes	5	4
Comments/Rationale for points:	TOTAL	18
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	8
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	8
Comments/Rationale for points:	TOTAL	16
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	8
Comments/Rationale for points:	TOTAL	16
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	TOTAL	22
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	4
Comments/Rationale for points:	TOTAL	8
	TOTAL SCORE:	80

Project Name: Penitas 2014 Street Improvement

Department:: Urban County

Firm/Participant: Name: Millennium Engineers Group, Inc.

Evaluator: Heidi Garcia Ortiz Date: 08-23-2016

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	9
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	9
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	TOTAL	23
Good list, complicated and not easy to follow		
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points:	TOTAL	18
Good experienced team, information teams crossed together.		
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	9
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points:	TOTAL	18
Good, Methodology needs to be more clearly defined.		
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	4
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	4
Comments/Rationale for points:	TOTAL	21
Good information, better organization would improve.		
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	4
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	4
Comments/Rationale for points:	TOTAL	9
Prior experience narrative not clearly defined.		
	TOTAL SCORE:	89

Project Name: 2014 Peñitas Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Terracon Consultants, Inc.

Evaluator: O. Romero - City of Peñitas. Date: 3/23/16

EXHIBIT "B"

Evaluation Criteria and Form

Hidalgo County

(Including all funding sources, programs, and entities)

"Professional Engineering Services- Construction Materials Geo Technical Testing Pool"

RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM – (25 points maximum)		
➢ Provide information on their proposed professional team members	10	10
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points: Meets all criteria	TOTAL	25
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	10
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	10
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	10
Comments/Rationale for points: Meets all criteria	TOTAL	20
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	10
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	3
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	5
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points: Must Address Appropriate Federal State Local regulations and make RFQ responsive	TOTAL	21
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	3
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	0
Comments/Rationale for points: Did Not provide Narrative. Past experience with Applicable rules and Regs.	TOTAL	3
	TOTAL SCORE:	89

Project Name: 2014 Peñitas Street Improvements

Department: Hidalgo County Urban County Program

Firm/Participant: Name: Terracon Consultants, Inc.

Evaluator: ANTONIO BARCO Date: 10-24-16

EXHIBIT "B"

Evaluation Criteria Form
Hidalgo County
(Including all funding sources, programs, and entities)
"Professional Engineering Services – Construction Materials Geo-Technical Testing Pool"
RFQ NO: 2016-003-02-17-HGO

SELECTION CRITERIA	POINTS	SCORE
1) STAFFING OF PROJECT TEAM -- (25 points maximum)		
➢ Provide information on their proposed professional team members	10	7
➢ Experience in performing various types of contracts for counties, cities or other clients as stated	10	10
➢ A list of various projects for comparative purposes	5	5
Comments/Rationale for points:	TOTAL	22
2) EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (20 points maximum)		
➢ Designate experienced engineering staff to efficiently perform the work.	10	9
➢ Identify the project team composition, project leadership, reporting responsibilities etc.	10	9
Comments/Rationale for points:	TOTAL	18
3) METHODOLOGY (20 points maximum)		
➢ Knowledge, experience, and the equipment to provide the anticipated services	10	8
➢ Management Plan for the anticipated services that will be highly responsive to the needs and interests of the County	10	9
Comments/Rationale for points:	TOTAL	17
4) UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25) points maximum)		
➢ Demonstrate an understanding of the scope of services	10	9
➢ Address appropriate Federal/State/Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	5
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	4
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate and appropriate to this RFQ	5	3
Comments/Rationale for points:	TOTAL	21
5) FAMILIARITY WITH APPLICABLE RULES and REGULATIONS (10 points maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	5
➢ Must contain a narrative that outlines applicable regulations, guidelines, standard and polices	5	3
Comments/Rationale for points:	TOTAL	8
	TOTAL SCORE:	86

Project Name: Penitas 2014 Street Improvements

Department:: Urban County

Firm/Participant: Name: Terracon

Evaluator: Heidi Garcia Ortiz Date: 08-23-16

AI-56317 **Precinct #2** **10. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Eddie Cantu, COMM. PCT. #2 **Submitted By:** Erika Zamora, COMM. PCT. #2

Department: COMM. PCT. #2

Information

CAPTION

Approval of Memorandum of Understanding between Hidalgo County and AVANCE, INC. to establish an agreement for cooperative efforts in the community to establish a common goal in providing for the healthy development of children and families in Hidalgo County.

BACKGROUND

Fiscal Impact

FISCAL YEAR: **ACCT. #:**

FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

No fiscal impact.

Attachments

LEGAL

MOU

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 02:02 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Erika Zamora		Started On: 09/09/2016 11:21 AM
Final Approval Date: 09/09/2016		

Zimbra **erika.zamora@co.hidalgo.tx.us**

Re: MOU

From : Josephine Ramirez <josephine.ramirez@da.co.hidalgo.tx.us> Fri, Sep 09, 2016 09:06 AM
Subject : Re: MOU 8 attachments
To : Erika Zamora <erika.zamora@co.hidalgo.tx.us>
Cc : Victor Garza <victor.garza@da.co.hidalgo.tx.us>, Jose Cabeza de Vaca <jose.cabezadevaca@co.hidalgo.tx.us>, armando garzajr <armando.garzajr@co.hidalgo.tx.us>

Erika,

I have reviewed and approve as to the form of the attached MOU with Avance.

Thank you,

Josephine Ramirez Solis

Assistant Criminal District Attorney

Chief - Civil Division

Office of Criminal District Attorney

Hidalgo County, Texas

100 E. Cano

Edinburg, TX 78539

(956) 292-7609 ext. 8186

(956) 318-2079 FAX

josephine.ramirez@da.co.hidalgo.tx.us

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****

On Thu, Sep 8, 2016 at 4:02 PM, Erika Zamora <erika.zamora@co.hidalgo.tx.us> wrote:

> Good afternoon Josie,
>
> Attached please find the previously reviewed AVANCE MOU with the requested revisions. Please review and let me know if it is good to go so that we can place on next weeks agenda for approval.
>
> Respectfully,
>
> Erika Zamora
> **Director of Administrative Operations**
> Hidalgo County Precinct #2
> 300 West Hall Acres, Suite G
> Pharr, Tx 78589
> (956) 787-1891 Ext. 2015 - Office
> erika.zamora@co.hidalgo.tx.us

From: "Jose Cabeza de Vaca" <jose.cabezadevaca@co.hidalgo.tx.us>
To: "Erika Zamora" <erika.zamora@co.hidalgo.tx.us>
Sent: Tuesday, September 6, 2016 8:52:44 AM
Subject: Fwd: MOU

Below is the response from Josephine on AVANCE MOU

From: "Josephine Ramirez" <josephine.ramirez@da.co.hidalgo.tx.us>
To: "Jose Cabeza de Vaca" <jose.cabezadevaca@co.hidalgo.tx.us>, "Armando Garza Jr." <armando.garzajr@co.hidalgo.tx.us>
Cc: "Victor Garza" <victor.garza@da.co.hidalgo.tx.us>
Sent: Wednesday, August 10, 2016 1:56:22 PM
Subject: Re: MOU

Pepe,

We reviewed the agreement provided with Avance and made some revisions to it/converted it to include our standard language. See attached.

Josephine Ramirez Solis

Assistant Criminal District Attorney

Chief - Civil Division

Office of Criminal District Attorney

Hidalgo County, Texas

100 E. Cano

Edinburg, TX 78539

(956) 292-7609 ext. 8186

(956) 318-2079 FAX

josephine.ramirez@da.co.hidalgo.tx.us

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****

On Mon, Jul 11, 2016 at 1:17 PM, Jose Cabeza de Vaca <jose.cabezadevaca@co.hidalgo.tx.us> wrote:

As per your request, please find attached the letter you asked for.
Thanks

From: "Elisa De La Rosa" <edelarosa.rgv@avance.org>
To: "Jose Cabeza de Vaca" <jose.cabezadevaca@co.hidalgo.tx.us>
Sent: Monday, July 11, 2016 11:47:10 AM
Subject: RE: MOU

Hi Pepe,

I have attached the commitment letter. Please let me know if you need any further information.

Thank You,

Elisa De La Rosa

Elisa De La Rosa, Program Assistant

AVANCE Rio Grande Valley

811 E. Bowie St. | Alamo, TX 78516

Tel: 956-354-2130 | Fax: (956) 223-2558

Visit AVANCE-San Antonio, Inc. on the web:

Edelarosa.rgv@avance.org

From: Jose Cabeza de Vaca [mailto:jose.cabezadevaca@co.hidalgo.tx.us]
Sent: Monday, July 11, 2016 11:36 AM
To: Elisa De La Rosa
Subject: Re: MOU

Hi Elisa, do you have a copy of the commitment letter our Alamo CRC director signed back then? Can you please send it to me via email?

Thanks

From: "Jose Cabeza de Vaca" <jose.cabezadevaca@co.hidalgo.tx.us>
To: "edelarosa rgv" <edelarosa.rgv@avance.org>
Sent: Tuesday, May 17, 2016 2:08:02 PM
Subject: MOU

Pleasure speaking to you today.

Can you please send me what the program you want to implement is about? When you want to start? What days? What time?

I appreciate it.

--

Pepe Cabeza de Vaca
Assistant Chief Administrator

COMMISSIONER

EDUARDO "EDDIE" CANTU

(956) 787-1891 Ext. 2016

--

Pepe Cabeza de Vaca
Assistant Chief Administrator

COMMISSIONER

EDUARDO "EDDIE" CANTU

(956) 787-1891 Ext. 2016

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Pepe Cabeza de Vaca
Assistant Chief Administrator
COMMISSIONER
EDUARDO "EDDIE" CANTU

(956) 787-1891 Ext. 2016

--

Pepe Cabeza de Vaca
Assistant Chief Administrator
COMMISSIONER
EDUARDO "EDDIE" CANTU

(956) 787-1891 Ext. 2016

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hike and bike logo.jpg
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image002.jpg
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YouTube.png
3 KB

STATE OF TEXAS §
§
COUNT OF HIDALGO §

MEMORANDUM OF UNDERSTANDING BETWEEN HIDALGO COUNTY AND AVANCE, INC.

This Memorandum of Understanding is made on this 13th day of Sept. 2016 by and between **HIDALGO COUNTY** by and through PRECINCT No. 2, hereinafter referred to as "COUNTY", with administrative offices located at 300 W. Hall Acres, Suite G, Pharr, TX 78577, and **AVANCE, INC.**, herein referred to as "AVANCE", located at 811 E. Bowie Ave., Alamo, Texas 78516.

The safety, health and general welfare of the citizens of Hidalgo County is a common objective of both parties. Further, it is the objective of AVANCE to collaborate with partners in the community to provide services to children and families, to foster the development of a continuum of family centered services, and to advocate for a community that shares responsibility for the healthy development of children and families of all cultures.

The aim of this Understanding is to establish an agreement for cooperative efforts in the community to establish a common goal in providing for the healthy development of children and families in HIDALGO COUNTY.

I. PROVISIONS OF SERVICES

The COUNTY has Community Resource Centers located in Alamo and San Juan. Through this Agreement the parties shall develop a cooperative program to provide services as follows:

The participation of COUNTY in this initiative shall consist of the following:

1. Support the goals and objectives of AVANCE's Fathers In Action/Padres Activos program.
2. Provide space to the Fathers In Action/Padres Activos and other AVANCE programs at County resource centers in Alamo and San Juan to help AVANCE facilitate programs.
3. Assist in the coordination of program-related activities and events.
4. Continue communication with the AVANCE Program Coordinator (verbal, written, and/or in person) about the overall success of the program activities when they include COUNTY.

The participation of AVANCE in this initiative shall consist of the following:

1. Identify and recruit participants interested in strengthening their skills in the area of fatherhood, healthy relationships, and job readiness/career advancement.
2. Track participation.
3. Schedule meetings, training, and/or conferences to ensure well-coordinated and effective delivery of program services.
4. Provide assistance to help eliminate participant barriers that can interfere with accessing Workforce services and/or securing employment.
5. Communicate with the Hidalgo County Precinct 2 representative (verbal, written, and/or in person) to provide updates on the overall success of the program.

None of the studies will put the Consenting Patient at any unnecessary risk. Potential risks to the patient associated with the research study are described in detail in the study Informed Consent

Document and will be explained to the patient prior to asking him/her to agree to participation in the study.

II. TERM OR AGREEMENT

The term of this agreement is for one year; it will begin on the September 14,2016 and end on Sept. 13, 2017.

III. COMPENSATION

COUNTY will receive no reimbursement from AVANCE for any services provided under the program. AVANCE will receive no reimbursement from COUNTY for any services provided.

IV. CONFIDENTIALITY

In the event this collaborative effort requires the mutual sharing of information made confidential by the laws of the State of Texas, information will only be exchanged as allowed by law.

V. NOTICES

All notices or other writing required under this Agreement shall be deemed to have been made when sent by certified or registered mail, return receipt request, to the following address:

TO AVANCE, Inc.:
Attn: James Keller, Regional Director
811 E. Bowie Avenue
Alamo, Texas 78516

TO COUNTY:
Hidalgo County Precinct #2
Attn: ****
300 W. Hall Acres St. G
Pharr, Texas 78577

VI. TERMINATION

This Agreement may be amended, modified or terminated by agreement of the parties. Further, the agreement may be terminated by either party by giving thirty (30) days written notice via certified mail, return receipt requested to the other party hereto of the intention to terminate.

VII. LAW GOVERNING VENUE

This Agreement shall be governed by and construed in accordance with the laws of the State of Texas, and, obligations and undertakings of each of the parties to this Agreement shall be performable in Hidalgo County, Texas.

VIII. LIABILITIES

This Agreement is not intended to extend the liability of the Parties beyond that provided by law. Neither party waive, nor shall be deemed to have hereby waived, any immunity or defenses that would otherwise be available to it against claims arising from third parties.

WITNESS THE HANDS OF THE PARTIES effective as of the day and year first written above.

AVANCE, INC.

James Keller
Regional Director

HIDALGO COUNTY TEXAS

Ramon Garcia, Hidalgo County Judge

ATTEST:

Arturo Guajardo, JR. Hidalgo County Clerk

APPROVED AS TO FORM:
Office of Criminal District Attorney
Ricardo Rodriguez

By: Josephine Ramirez-Solis
Assistant District Attorney

AI-56276 **Budget and Management** **11. A.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted By: Debbie Tamez, BUDGET & MANAGEMENT

Department: BUDGET & MANAGEMENT

Information

CAPTION

Title IV-E Child Welfare Services (1100):
1. Approval of the revised Title IV-E Child Welfare Services Grant Budget (Contract #23941009) for October 1, 2016 - September 30, 2017.
2. Approval for County Judge to sign required documents.

BACKGROUND

Fiscal Impact

FISCAL YEAR: SEE BELOW **ACCT. #:** SEE BELOW

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** Y

BUDGETARY IMPACT:

STATE FY 2017

The County matches 100% of all costs related to Title IV-E County Child Welfare Services. However, the Texas Department of Family and Protective Services reimburses
the county for part of the expenses when the County handles Title IV-E cases. Actual
reimbursement is based on Eligible Population Rate (EPR) in effect for the county during
the month in which the expenses are incurred. The reimbursement is then receipted in a
General Fund revenue account number (6-1100-331-12-360-001-0-000).

Attachments

Budget

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 04:54 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Debbie Tamez Started On: 09/08/2016 11:07 AM

Final Approval Date: 09/09/2016

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

Summary

County:	**Hidalgo County**
Contract Number:	**23941009**
Budget Effective Date:	**10/1/2016-9/30/2017**

Cost Category	*Estimated Total Expenses Allocable to Title IV-E*	*Total Anticipated Federal Reimbursement*	*Total Anticipated County Match*
A. Administration			
A.1. Direct Personnel Salaries	$85,672.08	$18,603.69	$67,068.39
A.2. Direct Personnel Fringe Benefits	$35,729.81	$7,758.73	$27,971.08
A.3. Direct Personnel Travel	$0.00	$0.00	$0.00
A.4. Direct Materials and Supplies	$0.00	$0.00	$0.00
A.5. Direct Equipment	$0.00	$0.00	$0.00
A.6. Direct Other Costs	$2,500.00	$542.88	$1,957.13
Total Administration	*$123,901.89*	*$26,905.30*	*$96,996.59*
B. Training			
B.1. Title IV-E Training (75%)	$0.00	$0.00	$0.00
B.2. Title IV-E Fostering Connections Training (75%)	$0.00	$0.00	$0.00
B.3. Non-Title IV-E Training (50%)	$0.00	$0.00	$0.00
Total Training	*$0.00*	*$0.00*	*$0.00*
C. Supplemental Foster Care Maintenance (SFCM)			
Total SFCM	*$4,200.00*	*$2,359.56*	*$1,840.44*
D. Indirect Costs (if applicable)			
Indirect Cost Base	*$0.00*	*$0.00*	*$0.00*
Grand Total	**$128,101.89**	**$29,264.86**	**$98,837.03**

***Estimated Federal Reimbursement for expenses based on Eligible Population Rate (EPR) during 3rd quarter of the preceding fiscal year:**	**43.430%**
Actual reimbursement will be based on EPR in effect for the county during the month in which expenses were incurred.	
*** Estimated Federal Reimbursement for Supplemental Foster Care Maintenance expenses based on Federal Medicaid Assistance Percentage (FMAP) rate in effect during preceding fiscal year:**	**56.18%**
Actual reimbursement will be based on FMAP rate in effect at the time reimbursement is made to contractor.	
Indirect Cost Rate, if applicable (attach a copy of the approved Certificate of Indirect Costs):	**0.000%**

Contractor Certification

Signature ***Date***

Printed Name & Title

Texas Dept. of Family
and Protective Services

Form 2030CWIVE

Budget for Title IV-E
County Child Welfare Services Contract

Administration
A.1. Direct Personnel Salaries

County: **Hidalgo County**

Contract Number: **23941009**

Budget Effective Date: **10/1/2016-9/30/2017**

Position or Title	A	B	C	D	E	F
	Monthly Salary	% of Time Spent on IV-E Activities	Number of Months of Service	Estimated Total Expense* (AxBxC)	Anticipated Federal Reimbursement (estimated EPR x 50% FFP)	Anticipated County Match
Human Services Technician	$2,389.17	100%	12	$28,670.04	$6,225.70	$22,444.34
Human Services Technician	$2,439.17	100%	12	$29,270.04	$6,355.99	$22,914.05
Human Services Technician	$2,311.00	100%	12	$27,732.00	$6,022.00	$21,710.00
				$0.00	$0.00	$0.00
				$0.00	$0.00	$0.00
				$0.00	$0.00	$0.00
			Total Direct Personnel Salaries	$85,672.08	$18,603.69	$67,068.39

* estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Form 2030CWIVE

Budget for Title IV-E
County Child Welfare Services Contract

Administration A.2. Direct Personnel Fringe Benefits			
	County:	**Hidalgo County**	
	Contract Number:	**23941009**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Type of Fringe Benefits	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
Health Insurance	$18,486.28	$4,014.30	$14,471.98
Life Insurance	$112.57	$24.44	$88.13
FICA	$6,547.63	$1,421.82	$5,125.81
Retirement	$9,770.22	$2,121.60	$7,648.62
Unemployment Comp	$513.54	$111.52	$402.02
Workers Comp	$299.57	$65.05	$234.52
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
Total Direct Personnel Fringe Benefits	$35,729.81	$7,758.73	$27,971.08

* estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Form 2030CWIVE

Budget for Title IV-E
County Child Welfare Services Contract

Administration A.3. Direct Personnel Travel			
	County:	**Hidalgo County**	
	Contract Number:	**23941009**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Type of Travel Expense Note: only include travel NOT related to personnel training	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
Total Direct Personnel Travel	$0.00	$0.00	$0.00

* estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Form 2030CWIVE

Budget for Title IV-E
County Child Welfare Services Contract

Administration A.4. Direct Materials and Supplies			
	County:	**Hidalgo County**	
	Contract Number:	**23941009**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Materials and Supplies (description)	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
Total Direct Materials and Supplies	$0.00	$0.00	$0.00

* estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

Administration A.5. Direct Equipment				
County:	**Hidalgo County**			
Contract Number:	**23941009**			
Budget Effective Date:	**10/1/2016-9/30/2017**			
Equipment (description)	**Method Used** (rent/lease/ purchase)	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
			$0.00	$0.00
Total Direct Equipment		$0.00	$0.00	$0.00

* estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Form 2030CWIVE

Budget for Title IV-E
County Child Welfare Services Contract

Administration A.6. Direct Other Costs			
	County:	**Hidalgo County**	
	Contract Number:	**23941009**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Other Costs (description)	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated EPR x 50% FFP)**	**Anticipated County Match**
Court Costs & Investigation	$2,500.00	$542.88	$1,957.13
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
		$0.00	$0.00
Total Direct Other Costs	$2,500.00	$542.88	$1,957.13

* estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

B. Training

B.1. Title IV-E Training (75%)

County: **Hidalgo County**

Contract Number: **23941009**

Budget Effective Date: **10/1/2016-9/30/2017**

Training (Description and Title)	**Registration*** (amount allocable to Title IV-E)	**Lodging*** (amount allocable to Title IV-E)	**Meals*** (amount allocable to Title IV-E)	**Transportation** (amount allocable to Title IV-E)	**Subtotal**	**Number of Employees Attending**	**Estimated Total Expense***	**Anticipated Federal Reimbursement** (estimated EPR x 75% FFP)
NOTE: Form 9321 *Training Expense Documentation Form* must be submitted to DFPS for review/approval by Federal Funds prior to training.								
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
				Total Training			$0.00	$0.00

* estimated amount allocable to Title IV-E

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

Anticipated County Match
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

B. Training

B.2. Title IV-E Fostering Connections Training (75%)

County: **Hidalgo County**

Contract Number: **23941009**

Budget Effective Date: **10/1/2016-9/30/2017**

Training (Description and Title)	**Registration*** (amount allocable to Title IV-E)	**Lodging*** (amount allocable to Title IV-E)	**Meals*** (amount allocable to Title IV-E)	**Transportation*** (amount allocable to Title IV-E)	**Subtotal**	**Number of Attendees**	**Estimated Total Expense***	**Anticipated Federal Reimbursement** (estimated EPR x 65% FFP)
NOTE: Form 9321 *Training Expense Documentation Form* must be submitted to DFPS for review/approval by Federal Funds prior to training.								
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
				Total Training			$0.00	$0.00

* estimated amount allocable to Title IV-E

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

Anticipated County Match
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

B. Training

B.3. Non-Title IV-E Training (50%)

County: **Hidalgo County**

Contract Number: **23941009**

Budget Effective Date: **10/1/2016-9/30/2017**

Training (Description and Title)	**Registration*** (amount allocable to Title IV-E)	**Lodging*** (amount allocable to Title IV-E)	**Meals*** (amount allocable to Title IV-E)	**Transportation*** (amount allocable to Title IV-E)	**Subtotal**	**Number of Employees Attending**	**Estimated Total Expense***	**Anticipated Federal Reimbursement** (estimated EPR x 50% FFP)
NOTE: Form 9321 *Training Expense Documentation Form* must be submitted to DFPS for review/approval by Federal Funds prior to training.								
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
					$0.00		$0.00	$0.00
				Total Training			$0.00	$0.00

* estimated amount allocable to Title IV-E

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

Anticipated County Match
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00

Texas Dept. of Family
and Protective Services

Form 2030CWIVE

Budget for Title IV-E
County Child Welfare Services Contract

C. Supplemental Foster Care Maintenance (SFCM)			
	County:	**Hidalgo County**	
	Contract Number:	**23941009**	
	Budget Effective Date:	**10/1/2016-9/30/2017**	
Other Costs (description)	**Estimated Total Expense***	**Anticipated Federal Reimbursement (estimated FMAP)**	**Anticipated County Match**
Allowances		$0.00	$0.00
Clothing	$2,200.00	$1,235.96	$964.04
Gifts		$0.00	$0.00
Graduation Expenses		$0.00	$0.00
Personal Items		$0.00	$0.00
School Supplies		$0.00	$0.00
Reasonable Child Specific Travel	$2,000.00	$1,123.60	$876.40
Total Direct Other Costs	$4,200.00	$2,359.56	$1,840.44

* estimated total cost for Title IV-E related activities

Note: Please refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc.
http://www.dfps.state.tx.us/handbooks/Title_IVE_County/default.jsp

Texas Dept. of Family
and Protective Services

Budget for Title IV-E
County Child Welfare Services Contract

Form 2030CWIVE

Budget Narrative

County:	**Hidalgo County**
Contract Number:	**23941009**
Budget Effective Date:	**10/1/2016-9/30/2017**

Clearly describe each expense to be incurred and billed to this contract. Refer to Title IV-E Finance Handbook for detailed information regarding allowable expenses, documentation requirements, etc. http://www.dfps.state.tx.us/handbooks/Title_IVE_County

A. Administration

A.1. Direct Personnel Salaries

Salaries of employees that will be assigned tasks to help meet the work constraints facing Child Protective Services (CPS). These individuals function as assistants to agency staff and supervisors in providing human services to Child Protective Services (CPS) clients. The staff is assigned Title IV-E activities and cases that meet Title IV-E criteria to allow for potential reimbursement by the State. The salaries set forth for all employees cover full tiime work status. The total amount is $85,672.08 for the Human Services Technicians, including longevity pay.

A.2. Direct Personnel Fringe Benefits

Fringe benefits of employees performing Title IV-E activities as Human Services Technicians.

A.3. Direct Personnel Travel

A.4. Direct Materials and Supplies

A.5. Direct Equipment

A.6. Direct Other Costs

Costs associated with court costs & investigations such as the service of a citation.

B. Training

B.1. Title IV-E Training (75%)

B.2. Title IV-E Fostering Connections Training (75%)

B.3. Non-Title IV-E Training (50%)

C. Supplemental Foster Care Maintenance (SFCM)

Costs associated with providing the children with clothing/uniforms and for reasonable child specific travel.

Budget for Title IV-E
County Child Welfare Services Contract

D. Indirect Costs (if applicable)

AI-56087 **Budget and Management** **11. B.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted By: Rolando Garcia, BUDGET & MANAGEMENT

Department: BUDGET & MANAGEMENT

Information

CAPTION

FY 2016 JAG Grant (1282):
1. Approval to accept the FY16 Edward Byrne Memorial Justice Assistance Grant Award (JAG) in the amount of $40,631.00
2. Approval of Certification of Revenues by the County Auditor for the FY16 Edward Byrne Memorial Justice Assistance Grant Award (JAG).
3. Approval of 2016 appropriation of funds for the FY16 (JAG) grant
4. Approval to revise the Salary Schedule with Commissioners Court approval.

BACKGROUND

FY 16 JAG funds will cover salaries, fringe benefits and other allowances (Court Coordinator - Auxiliary Court) for approximately 7.3 months (Sept. 2016 - Feb. 2017)

The award should be **signed** by the authorized official (County Judge). The Special Conditions portion of the award should be **initialed** by (County Judge) on the **bottom right corner of each page.**

Award# 2016-DJ-BX-0021 for period from 10/01/2015 to 09/30/2019

Fiscal Impact

FISCAL YEAR: **ACCT. #:** 6-1282-412-00-115-047-9-XXX

FUNDS AVAILABLE Y/N?: YES **MATCHING FUNDS Y/N?:** NO

BUDGETARY IMPACT:

Appropriation of funds in the total amount of $40,631.00
Revenue account 6-1282-331-11-115-047-9-000 Justice Assistance Grant - Revenue
No local cash match required
Note: Health and Life Insurance expenditures will be reclassified to general fund

Attachments

Award Documents
Email Award Notice

Appropriation
COR

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 03:52 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Rolando Garcia		Started On: 08/26/2016 02:24 PM
Final Approval Date: 09/09/2016		

U.S. Department of Justice

Office of Justice Programs

Bureau of Justice Assistance

Office of Justice Programs *Washington, D.C. 20531*

August 9, 2016

The Honorable Ramon Garcia
Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

Dear Judge Garcia:

On behalf of Attorney General Loretta Lynch, it is my pleasure to inform you that the Office of Justice Programs has approved your application for funding under the FY 16 Edward Byrne Memorial Justice Assistance Grant (JAG) Program - Local Solicitation in the amount of $40,631 for Hidalgo County.

Enclosed you will find the Grant Award and Special Conditions documents. This award is subject to all administrative and financial requirements, including the timely submission of all financial and programmatic reports, resolution of all interim audit findings, and the maintenance of a minimum level of cash-on-hand. Should you not adhere to these requirements, you will be in violation of the terms of this agreement and the award will be subject to termination for cause or other administrative action as appropriate.

If you have questions regarding this award, please contact:

- Program Questions, Carrie Booth, Program Manager at (202) 305-7426; and
- Financial Questions, the Office of the Chief Financial Officer, Customer Service Center (CSC) at (800) 458-0786, or you may contact the CSC at ask.ocfo@usdoj.gov.

Congratulations, and we look forward to working with you.

Sincerely,

Denise O'Donnell
Director

Enclosures

OFFICE FOR CIVIL RIGHTS

Office of Justice Programs

U.S. Department of Justice

810 7th Street, NW
Washington, DC 20531

Tel: (202) 307-0690
TTY: (202) 307-2027
E-mail: askOCR@usdoj.gov
Website: www.ojp.usdoj.gov/ocr

August 9, 2016

The Honorable Ramon Garcia
Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

Dear Judge Garcia:

Congratulations on your recent award. In establishing financial assistance programs, Congress linked the receipt of federal funding to compliance with federal civil rights laws. The Office for Civil Rights (OCR), Office of Justice Programs (OJP), U.S. Department of Justice (DOJ) is responsible for ensuring that recipients of financial assistance from the OJP, the Office of Community Oriented Policing Services (COPS), and the Office on Violence Against Women (OVW) comply with the applicable federal civil rights laws. We at the OCR are available to help you and your organization meet the civil rights requirements that come with DOJ funding.

Ensuring Access to Federally Assisted Programs

Federal laws that apply to recipients of financial assistance from the DOJ prohibit discrimination on the basis of race, color, national origin, religion, sex, or disability in funded programs or activities, not only in employment but also in the delivery of services or benefits. A federal law also prohibits recipients from discriminating on the basis of age in the delivery of services or benefits.

In March of 2013, President Obama signed the Violence Against Women Reauthorization Act of 2013. The statute amends the Violence Against Women Act of 1994 (VAWA) by including a nondiscrimination grant condition that prohibits discrimination based on actual or perceived race, color, national origin, religion, sex, disability, sexual orientation, or gender identity. The new nondiscrimination grant condition applies to certain programs funded after October 1, 2013. The OCR and the OVW have developed answers to some frequently asked questions about this provision to assist recipients of VAWA funds to understand their obligations. The Frequently Asked Questions are available at http://ojp.gov/about/ocr/vawafaqs.htm.

Enforcing Civil Rights Laws

All recipients of federal financial assistance, regardless of the particular funding source, the amount of the grant award, or the number of employees in the workforce, are subject to prohibitions against unlawful discrimination. Accordingly, the OCR investigates recipients that are the subject of discrimination complaints from both individuals and groups. In addition, based on regulatory criteria, the OCR selects a number of recipients each year for compliance reviews, audits that require recipients to submit data showing that they are providing services equitably to all segments of their service population and that their employment practices meet equal opportunity standards.

Providing Services to Limited English Proficiency (LEP) Individuals

In accordance with DOJ guidance pertaining to Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, recipients of federal financial assistance must take reasonable steps to provide meaningful access to their programs and activities for persons with limited English proficiency (LEP). See U.S. Department of Justice, Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons, 67 Fed. Reg. 41,455 (2002). For more information on the civil rights responsibilities that recipients have in providing language services to LEP individuals, please see the website http://www.lep.gov.

Ensuring Equal Treatment for Faith-Based Organizations

The DOJ regulation, Equal Treatment for Faith-Based Organizations, 28 C.F.R. pt. 38, requires State Administering Agencies (SAAs) to treat faith-based organizations the same as any other applicant or recipient. The regulation prohibits SAAs from making awards or grant administration decisions on the basis of an organization's religious character or affiliation, religious name, or the religious composition of its board of directors.

The regulation also prohibits faith-based organizations from using financial assistance from the DOJ to fund inherently (or explicitly) religious activities. While faith-based organizations can engage in non-funded inherently religious activities, they must hold them separately from the program funded by the DOJ, and recipients cannot compel beneficiaries to participate in them. The Equal Treatment Regulation also makes clear that organizations participating in programs funded by the DOJ are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. For more information on the regulation, please see the OCR's website at http://www.ojp.usdoj.gov/about/ocr/equal_fbo.htm.

SAAs and faith-based organizations should also note that the Omnibus Crime Control and Safe Streets Act (Safe Streets Act) of 1968, as amended, 42 U.S.C. § 3789d(c); the Victims of Crime Act of 1984, as amended, 42 U.S.C. § 10604(e); the Juvenile Justice and Delinquency Prevention Act of 1974, as amended, 42 U.S.C. § 5672(b); and VAWA, Pub. L. No. 113-4, sec. 3(b)(4), 127 Stat. 54, 61-62 (to be codified at 42 U.S.C. § 13925(b)(13)) contain prohibitions against discrimination on the basis of religion in employment. Despite these nondiscrimination provisions, the DOJ has concluded that it may construe the Religious Freedom Restoration Act (RFRA) on a case-by-case basis to permit some faith-based organizations to receive DOJ funds while taking into account religion when hiring staff, even if the statute that authorizes the funding program generally forbids recipients from considering religion in employment decisions.
Please consult with the OCR if you have any questions about the regulation or the application of RFRA to the statutes that prohibit discrimination in employment.

Using Arrest and Conviction Records in Making Employment Decisions

The OCR issued an advisory document for recipients on the proper use of arrest and conviction records in making hiring decisions. See Advisory for Recipients of Financial Assistance from the U.S. Department of Justice on the U.S. Equal Employment Opportunity Commission's Enforcement Guidance: Consideration of Arrest and Conviction Records in Employment Decisions Under Title VII of the Civil Rights Act of 1964 (June 2013), available at http://www.ojp.usdoj.gov//about/ocr/pdfs/UseofConviction_Advisory.pdf. Recipients should be mindful that the misuse of arrest or conviction records to screen either applicants for employment or employees for retention or promotion may have a disparate impact based on race or national origin, resulting in unlawful employment discrimination. In light of the Advisory, recipients should consult local counsel in reviewing their employment practices. If warranted, recipients should also incorporate an analysis of the use of arrest and conviction records in their Equal Employment Opportunity Plans (EEOPs) (see below).

Complying with the Safe Streets Act

An organization that is a recipient of financial assistance subject to the nondiscrimination provisions of the Safe Streets Act, must meet two obligations: (1) complying with the federal regulation pertaining to the development of an EEOP (see 28 C.F.R. pt. 42, subpt. E) and (2) submitting to the OCR findings of discrimination (see 28 C.F.R. §§ 42.204(c), .205(c)(5)).

Meeting the EEOP Requirement

If your organization has less than fifty employees or receives an award of less than $25,000 or is a nonprofit organization, a medical institution, an educational institution, or an Indian tribe, then it is exempt from the EEOP requirement. To claim the exemption, your organization must complete and submit Section A of the Certification Form, which is available online at http://www.ojp.usdoj.gov/about/ocr/pdfs/cert.pdf.

If your organization is a government agency or private business and receives an award of $25,000 or more, but less than $500,000, and has fifty or more employees (counting both full- and part-time employees but excluding political appointees), then it has to prepare a Utilization Report (formerly called an EEOP Short Form), but it does not have to submit the report to the OCR for review. Instead, your organization has to maintain the Utilization Report on file and make it available for review on request. In addition, your organization has to complete Section B of the Certification Form and return it to the OCR. The Certification Form is available at http://www.ojp.usdoj.gov/about/ocr/pdfs/cert.pdf.

If your organization is a government agency or private business and has received an award for $500,000 or more and has fifty or more employees (counting both full- and part-time employees but excluding political appointees), then it has to prepare a Utilization Report (formerly called an EEOP Short Form) and submit it to the OCR for review within sixty days from the date of this letter. For assistance in developing a Utilization Report, please consult the OCR's website at http://www.ojp.usdoj.gov/about/ocr/eeop.htm. In addition, your organization has to complete Section C of the Certification Form and return it to the OCR. The Certification Form is available at http://www.ojp.usdoj.gov/about/ocr/pdfs/cert.pdf.

To comply with the EEOP requirements, you may request technical assistance from an EEOP specialist at the OCR by telephone at (202) 307-0690, by TTY at (202) 307-2027, or by e-mail at EEOsubmisson@usdoj.gov.

Meeting the Requirement to Submit Findings of Discrimination

If in the three years prior to the date of the grant award, your organization has received an adverse finding of discrimination based on race, color, national origin, religion, or sex, after a due-process hearing, from a state or federal court or from a state or federal administrative agency, your organization must send a copy of the finding to the OCR.

Ensuring the Compliance of Subrecipients

SAAs must have standard assurances to notify subrecipients of their civil rights obligations, written procedures to address discrimination complaints filed against subrecipients, methods to monitor subrecipients' compliance with civil rights requirements, and a program to train subrecipients on applicable civil rights laws. In addition, SAAs must submit to the OCR every three years written Methods of Administration (MOA) that summarize the policies and procedures that they have implemented to ensure the civil rights compliance of subrecipients. For more information on the MOA requirement, see http://www.ojp.usdoj.gov/funding/other_requirements.htm.

If the OCR can assist you in any way in fulfilling your organization's civil rights responsibilities as a recipient of federal financial assistance, please contact us.

Sincerely,

Michael L. Alston
Director

cc: Grant Manager
Financial Analyst

U.S. Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Grant

1. RECIPIENT NAME AND ADDRESS (Including Zip Code)

Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

4. AWARD NUMBER: 2016-DJ-BX-0021

5. PROJECT PERIOD: FROM 10/01/2015 TO 09/30/2019

BUDGET PERIOD: FROM 10/01/2015 TO 09/30/2019

6. AWARD DATE 08/09/2016

7. ACTION: Initial

2a. GRANTEE IRS/VENDOR NO.
746000717

8. SUPPLEMENT NUMBER
00

2b. GRANTEE DUNS NO.
103110834

9. PREVIOUS AWARD AMOUNT $ 0

3. PROJECT TITLE
Hidalgo County Auxiliary Court

10. AMOUNT OF THIS AWARD $ 40,631

11. TOTAL AWARD $ 40,631

12. SPECIAL CONDITIONS

TIIE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH ON THE ATTACHED PAGE(S).

13. STATUTORY AUTHORITY FOR GRANT

This project is supported under FY16(BJA - JAG) 42 USC 3750, et seq.

14 . CATALOG OF DOMESTIC FEDERAL ASSISTANCE (CFDA Number)

16.738 - Edward Byrne Memorial Justice Assistance Grant Program

15. METHOD OF PAYMENT

GPRS

[redacted] AGENCY APPROVAL [redacted]

16. TYPED NAME AND TITLE OF APPROVING OFFICIAL

Denise O'Donnell
Director

17. SIGNATURE OF APPROVING OFFICIAL

[redacted] GRANTEE ACCEPTANCE [redacted]

18. TYPED NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL

Ramon Garcia
Judge

19. SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL

19A. DATE

[redacted] AGENCY USE ONLY [redacted]

20. ACCOUNTING CLASSIFICATION CODES

FISCAL YEAR	FUND CODE	BUD. ACT.	OFC.	DIV. REG.	SUB.	POMS	AMOUNT
X	B	DJ	80	00	00		40631

21. RDJUGT0027

SPECIAL CONDITIONS

1. Applicability of Part 200 Uniform Requirements

   The Uniform Administrative Requirements, Cost Principles, and Audit Requirements in 2 C.F.R. Part 200, as adopted and supplemented by the Department of Justice (DOJ) in 2 C.F.R. Part 2800 (together, the "Part 200 Uniform Requirements") apply to this 2016 award from the Office of Justice Programs (OJP).

   The Part 200 Uniform Requirements were first adopted by DOJ on December 26, 2014. If this 2016 award supplements funds previously awarded by OJP under the same award number (e.g., funds awarded in 2014 or earlier years), the Part 200 Uniform Requirements apply with respect to all funds under that award number (regardless of the award date, and regardless of whether derived from the initial award or a supplemental award) that are obligated on or after the acceptance date of this 2016 award.

   For more information and resources on the Part 200 Uniform Requirements as they relate to OJP awards and subawards ("subgrants"), see the Office of Justice Programs (OJP) website at http://ojp.gov/funding/Part200UniformRequirements.htm.

   In the event that an award-related question arises from documents or other materials prepared or distributed by OJP that may appear to conflict with, or differ in some way from, the provisions of the Part 200 Uniform Requirements, the recipient is to contact OJP promptly for clarification.

2. Compliance with DOJ Grants Financial Guide

   The recipient agrees to comply with the Department of Justice Grants Financial Guide as posted on the OJP website (currently, the "2015 DOJ Grants Financial Guide"), including any updated version that may be posted during the period of performance.

3. Requirements related to "de minimis" indirect cost rate

   A recipient that is eligible under the Part 200 Uniform Requirements and other applicable law to use the "de minimis" indirect cost rate described in 2 C.F.R. 200.414(f), and that elects to use the "de minimis" indirect cost rate, must advise OJP in writing of both its eligibility and its election, and must comply with all associated requirements in the Part 200 Uniform Requirements. The "de minimis" rate may be applied only to modified total direct costs (MTDC) as defined by the Part 200 Uniform Requirements.

4. Requirement to report potentially duplicative funding

   If the recipient currently has other active awards of federal funds, or if the recipient receives any other award of federal funds during the period of performance for this award, the recipient promptly must determine whether funds from any of those other federal awards have been, are being, or are to be used (in whole or in part) for one or more of the identical cost items for which funds are provided under this award. If so, the recipient must promptly notify the DOJ awarding agency (OJP or OVW, as appropriate) in writing of the potential duplication, and, if so requested by DOJ awarding agency, must seek a budget-modification or change-of-project-scope grant adjustment notice (GAN) to eliminate any inappropriate duplication of funding.

SPECIAL CONDITIONS

5. Requirements related to System for Award Management and Unique Entity Identifiers

   The recipient must comply with applicable requirements regarding the System for Award Management (SAM), currently accessible at http://www.sam.gov. This includes applicable requirements regarding registration with SAM, as well as maintaining the currency of information in SAM.

   The recipient also must comply with applicable restrictions on subawards ("subgrants") to first-tier subrecipients (first-tier "subgrantees"), including restrictions on subawards to entities that do not acquire and provide (to the recipient) the unique entity identifier required for SAM registration.

   The details of the recipient's obligations related to SAM and to unique entity identifiers are posted on the OJP web site at http://ojp.gov/funding/Explore/SAM.htm (Award condition: System for Award Management (SAM) and Universal Identifier Requirements), and are incorporated by reference here.

   This special condition does not apply to an award to an individual who received the award as a natural person (i.e., unrelated to any business or non-profit organization that he or she may own or operate in his or her name).

6. Requirements pertaining to prohibited conduct related to trafficking in persons (including reporting requirements and OJP authority to terminate award)

   The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable requirements (including requirements to report allegations) pertaining to prohibited conduct related to the trafficking of persons, whether on the part of recipients, subrecipients ("subgrantees"), or individuals defined (for purposes of this condition) as "employees" of the recipient or of any subrecipient.
   The details of the recipient's obligations related to prohibited conduct related to trafficking in persons are posted on the OJP web site at http://ojp.gov/funding/Explore/ProhibitedConduct-Trafficking.htm (Award condition: Prohibited conduct by recipients and subrecipients related to trafficking in persons (including reporting requirements and OJP authority to terminate award)), and are incorporated by reference here.

7. Compliance with applicable rules regarding approval, planning, and reporting of conferences, meetings, trainings, and other events

   The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable laws, regulations, policies, and official DOJ guidance (including specific cost limits, prior approval and reporting requirements, where applicable) governing the use of federal funds for expenses related to conferences (as that term is defined by DOJ), including the provision of food and/or beverages at such conferences, and costs of attendance at such conferences.

   Information on the pertinent DOJ definition of conferences and the rules applicable to this award appears in the DOJ Grants Financial Guide (currently, as section 3.10 of "Postaward Requirements" in the "2015 DOJ Grants Financial Guide").

8. Requirement for data on performance and effectiveness under the award

   The recipient must collect and maintain data that measure the performance and effectiveness of activities under this award. The data must be provided to OJP in the manner (including within the timeframes) specified by OJP in the program solicitation or other applicable written guidance. Data collection supports compliance with the Government Performance and Results Act (GPRA) and the GPRA Modernization Act, and other applicable laws.

SPECIAL CONDITIONS

9. OJP Training Guiding Principles

   Any training or training materials that the recipient -- or any subrecipient ("subgrantee") at any tier -- develops or delivers with OJP award funds must adhere to the OJP Training Guiding Principles for Grantees and Subgrantees, available at http://ojp.gov/funding/ojptrainingguidingprinciples.htm.

10. Effect of failure to address audit issues

    The recipient understands and agrees that the DOJ awarding agency (OJP or OVW, as appropriate) may withhold award funds, or may impose other related requirements, if (as determined by the DOJ awarding agency) the recipient does not satisfactorily and promptly address outstanding issues from audits required by the Part 200 Uniform Requirements (or by the terms of this award), or other outstanding issues that arise in connection with audits, investigations, or reviews of DOJ awards.

11. The recipient agrees to comply with any additional requirements that may be imposed by the DOJ awarding agency (OJP or OVW, as appropriate) during the period of performance for this award, if the recipient is designated as "high-risk" for purposes of the DOJ high-risk grantee list.

12. Compliance with DOJ regulations pertaining to civil rights and nondiscrimination - 28 C.F.R. Part 42

    The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable requirements of 28 C.F.R. Part 42, specifically including any applicable requirements in Subpart E of 28 C.F.R. Part 42 that relate to an equal employment opportunity program.

13. Compliance with DOJ regulations pertaining to civil rights and nondiscrimination - 28 C.F.R. Part 38

    The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable requirements of 28 C.F.R. Part 38, specifically including any applicable requirements regarding written notice to program beneficiaries and prospective program beneficiaries. Part 38 of 28 C.F.R., a DOJ regulation, was amended effective May 4, 2016.

    Among other things, 28 C.F.R. Part 38 includes rules that prohibit specific forms of discrimination on the basis of religion, a religious belief, a refusal to hold a religious belief, or refusal to attend or participate in a religious practice. Part 38 also sets out rules and requirements that pertain to recipient and subrecipient ("subgrantee") organizations that engage in or conduct explicitly religious activities, as well as rules and requirements that pertain to recipients and subrecipients that are faith-based or religious organizations.

    The text of the regulation, now entitled "Partnerships with Faith-Based and Other Neighborhood Organizations," is available via the Electronic Code of Federal Regulations (currently accessible at http://www.ecfr.gov/cgi-bin/ECFR?page=browse), by browsing to Title 28-Judicial Administration, Chapter 1, Part 38, under e-CFR "current" data.

14. Restrictions on "lobbying"

    Federal funds may not be used by the recipient, or any subrecipient ("subgrantee") at any tier, either directly or indirectly, to support or oppose the enactment, repeal, modification or adoption of any law, regulation, or policy, at any level of government.

    Should any question arise as to whether a particular use of Federal funds by a recipient (or subrecipient) would or might fall within the scope of this prohibition, the recipient is to contact OJP for guidance, and may not proceed without the express prior written approval of OJP.

SPECIAL CONDITIONS

15. Compliance with general appropriations-law restrictions on the use of federal funds (FY 2016)

The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable restrictions on the use of federal funds set out in federal appropriations statutes. Pertinent restrictions, including from various "general provisions" in the Consolidated Appropriations Act, 2016, are set out at http://ojp.gov/funding/Explore/FY2016-AppropriationsLawRestrictions.htm, and are incorporated by reference here.

Should a question arise as to whether a particular use of federal funds by a recipient (or a subrecipient) would or might fall within the scope of an appropriations-law restriction, the recipient is to contact OJP for guidance, and may not proceed without the express prior written approval of OJP.

16. Reporting Potential Fraud, Waste, and Abuse, and Similar Misconduct

The recipient and any subrecipients ("subgrantees") must promptly refer to the DOJ Office of the Inspector General (OIG) any credible evidence that a principal, employee, agent, subrecipient, contractor, subcontractor, or other person has, in connection with funds under this award -- (1) submitted a claim that violates the False Claims Act; or (2) committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct.

Potential fraud, waste, abuse, or misconduct involving or relating to funds under this award should be reported to the OIG by-- (1) mail directed to: Office of the Inspector General, U.S. Department of Justice, Investigations Division, 950 Pennsylvania Avenue, N.W. Room 4706, Washington, DC 20530; (2) e-mail to: oig.hotline@usdoj.gov; and/or (3) the DOJ OIG hotline: (contact information in English and Spanish) at (800) 869-4499 (phone) or (202) 616-9881 (fax).

Additional information is available from the DOJ OIG website at http://www.usdoj.gov/oig.

SPECIAL CONDITIONS

17. Restrictions and certifications regarding non-disclosure agreements and related matters

No recipient or subrecipient ("subgrantee") under this award, or entity that receives a procurement contract or subcontract with any funds under this award, may require any employee or contractor to sign an internal confidentiality agreement or statement that prohibits or otherwise restricts, or purports to prohibit or restrict, the reporting (in accordance with law) of waste, fraud, or abuse to an investigative or law enforcement representative of a federal department or agency authorized to receive such information.

The foregoing is not intended, and shall not be understood by the agency making this award, to contravene requirements applicable to Standard Form 312 (which relates to classified information), Form 4414 (which relates to sensitive compartmented information), or any other form issued by a federal department or agency governing the nondisclosure of classified information.

1. In accepting this award, the recipient--

a. represents that it neither requires nor has required internal confidentiality agreements or statements from employees or contractors that currently prohibit or otherwise currently restrict (or purport to prohibit or restrict) employees or contractors from reporting waste, fraud, or abuse as described above; and

b. certifies that, if it learns or is notified that it is or has been requiring its employees or contractors to execute agreements or statements that prohibit or otherwise restrict (or purport to prohibit or restrict), reporting of waste, fraud, or abuse as described above, it will immediately stop any further obligations of award funds, will provide prompt written notification to the federal agency making this award, and will resume (or permit resumption of) such obligations only if expressly authorized to do so by that agency.

2. If the recipient does or is authorized under this award to make subawards ("subgrants"), procurement contracts, or both--

a. it represents that--

(1) it has determined that no other entity that the recipient's application proposes may or will receive award funds (whether through a subaward ("subgrant"), procurement contract, or subcontract under a procurement contract) either requires or has required internal confidentiality agreements or statements from employees or contractors that currently prohibit or otherwise currently restrict (or purport to prohibit or restrict) employees or contractors from reporting waste, fraud, or abuse as described above; and

(2) it has made appropriate inquiry, or otherwise has an adequate factual basis, to support this representation; and

b. it certifies that, if it learns or is notified that any subrecipient, contractor, or subcontractor entity that receives funds under this award is or has been requiring its employees or contractors to execute agreements or statements that prohibit or otherwise restrict (or purport to prohibit or restrict), reporting of waste, fraud, or abuse as described above, it will immediately stop any further obligations of award funds to or by that entity, will provide prompt written notification to the federal agency making this award, and will resume (or permit resumption of) such obligations only if expressly authorized to do so by that agency.

SPECIAL CONDITIONS

18. Compliance with 41 U.S.C. 4712 (including prohibitions on reprisal; notice to employees)

The recipient must comply with, and is subject to, all applicable provisions of 41 U.S.C. 4712, including all applicable provisions that prohibit, under specified circumstances, discrimination against an employee as reprisal for the employee's disclosure of information related to gross mismanagement of a federal grant, a gross waste of federal funds, an abuse of authority relating to a federal grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal grant.

The recipient also must inform its employees, in writing (and in the predominant native language of the workforce), of employee rights and remedies under 41 U.S.C. 4712.

Should a question arise as to the applicability of the provisions of 41 U.S.C. 4712 to this award, the recipient is to contact the DOJ awarding agency (OJP or OVW, as appropriate) for guidance.

19. Encouragement of policies to ban text messaging while driving

Pursuant to Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving," 74 Fed. Reg. 51225 (October 1, 2009), DOJ encourages recipients and subrecipients ("subgrantees") to adopt and enforce policies banning employees from text messaging while driving any vehicle during the course of performing work funded by this award, and to establish workplace safety policies and conduct education, awareness, and other outreach to decrease crashes caused by distracted drivers.

20. The recipient agrees to comply with OJP grant monitoring guidelines, protocols, and procedures, and to cooperate with BJA and OCFO on all grant monitoring requests, including requests related to desk reviews, enhanced programmatic desk reviews, and/or site visits. The recipient agrees to provide to BJA and OCFO all documentation necessary to complete monitoring tasks, including documentation related to any subawards made under this award. Further, the recipient agrees to abide by reasonable deadlines set by BJA and OCFO for providing the requested documents. Failure to cooperate with BJA's/OCFO's grant monitoring activities may result in sanctions affecting the recipient's DOJ awards, including, but not limited to: withholdings and/or other restrictions on the recipient's access to grant funds; referral to the Office of the Inspector General for audit review; designation of the recipient as a DOJ High Risk grantee; or termination of an award(s).

21. The recipient agrees to comply with applicable requirements to report first-tier subawards of $25,000 or more and, in certain circumstances, to report the names and total compensation of the five most highly compensated executives of the recipient and first-tier subrecipients of award funds. Such data will be submitted to the FFATA Subaward Reporting System (FSRS). The details of recipient obligations, which derive from the Federal Funding Accountability and Transparency Act of 2006 (FFATA), are posted on the Office of Justice Programs web site at http://ojp.gov/funding/Explore/FFATA.htm (Award condition: Reporting Subawards and Executive Compensation), and are incorporated by reference here. This condition, and its reporting requirement, does not apply to grant awards made to an individual who received the award as a natural person (i.e., unrelated to any business or non-profit organization that he or she may own or operate in his or her name).

22. Program income (as defined in the Part 200 Uniform Requirements) must be used in accordance with the provisions of the Part 200 Uniform Requirements. Program income earnings and expenditures both must be reported on the quarterly Federal Financial Report, SF 425.

SPECIAL CONDITIONS

23. In order to promote information sharing and enable interoperability among disparate systems across the justice and public safety community, OJP requires the grantee to comply with DOJ's Global Justice Information Sharing Initiative (DOJ's Global) guidelines and recommendations for this particular grant. Grantee shall conform to the Global Standards Package (GSP) and all constituent elements, where applicable, as described at: http://www.it.ojp.gov/gsp_grantcondition. Grantee shall document planned approaches to information sharing and describe compliance to the GSP and appropriate privacy policy that protects shared information, or provide detailed justification for why an alternative approach is recommended.

24. To avoid duplicating existing networks or IT systems in any initiatives funded by BJA for law enforcement information sharing systems which involve interstate connectivity between jurisdictions, such systems shall employ, to the extent possible, existing networks as the communication backbone to achieve interstate connectivity, unless the grantee can demonstrate to the satisfaction of BJA that this requirement would not be cost effective or would impair the functionality of an existing or proposed IT system.

25. The recipient agrees that any information technology system funded or supported by OJP funds will comply with 28 C.F.R. Part 23, Criminal Intelligence Systems Operating Policies, if OJP determines this regulation to be applicable. Should OJP determine 28 C.F.R. Part 23 to be applicable, OJP may, at its discretion, perform audits of the system, as per the regulation. Should any violation of 28 C.F.R. Part 23 occur, the recipient may be fined as per 42 U.S.C. 3789g(c)-(d). Recipient may not satisfy such a fine with federal funds.

26. Grantee agrees to comply with the requirements of 28 C.F.R. Part 46 and all Office of Justice Programs policies and procedures regarding the protection of human research subjects, including obtainment of Institutional Review Board approval, if appropriate, and subject informed consent.

27. Grantee agrees to comply with all confidentiality requirements of 42 U.S.C. section 3789g and 28 C.F.R. Part 22 that are applicable to collection, use, and revelation of data or information. Grantee further agrees, as a condition of grant approval, to submit a Privacy Certificate that is in accord with requirements of 28 C.F.R. Part 22 and, in particular, section 22.23.

28. Award recipients must verify Point of Contact(POC), Financial Point of Contact (FPOC), and Authorized Representative contact information in GMS, including telephone number and e-mail address. If any information is incorrect or has changed, a Grant Adjustment Notice (GAN) must be submitted via the Grants Management System (GMS) to document changes.

29. The grantee agrees that within 120 days of award acceptance, each current member of a law enforcement task force funded with these funds who is a task force commander, agency executive, task force officer, or other task force member of equivalent rank, will complete required online (internet-based) task force training. Additionally, all future task force members are required to complete this training once during the life of this award, or once every four years if multiple awards include this requirement. The training is provided free of charge online through BJA's Center for Task Force Integrity and Leadership (www.ctfli.org). This training addresses task force effectiveness as well as other key issues including privacy and civil liberties/rights, task force performance measurement, personnel selection, and task force oversight and accountability. When BJA funding supports a task force, a task force personnel roster should be compiled and maintained, along with course completion certificates, by the grant recipient. Additional information is available regarding this required training and access methods via BJA's web site and the Center for Task Force Integrity and Leadership (www.ctfli.org).

30. The recipient agrees to participate in BJA-sponsored training events, technical assistance events, or conferences held by BJA or its designees, upon BJA's request.

SPECIAL CONDITIONS

31. All procurement (contract) transactions under this award must be conducted in a manner that is consistent with applicable Federal, State, and tribal law, and with Federal procurement standards specified in regulations governing Federal awards to non-Federal entities. Procurement (contract) transactions should be competitively awarded unless circumstances preclude competition. Noncompetitive ("sole source") procurements by the award recipient in excess of the Simplified Acquisition Threshold (currently $150,000) set out in the Federal Acquisition Regulation must receive prior approval from the awarding agency, and must otherwise comply with rules governing such procurements found in the current edition of the DOJ Grants Financial Guide.

32. Approval of this award does not indicate approval of any consultant rate in excess of $650 per day. A detailed justification must be submitted to and approved by the Office of Justice Programs (OJP) program office prior to obligation or expenditure of such funds.

33. The grantee agrees to assist BJA in complying with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, and other related federal environmental impact analyses requirements in the use of these grant funds, either directly by the grantee or by a subgrantee. Accordingly, the grantee agrees to first determine if any of the following activities will be funded by the grant, prior to obligating funds for any of these purposes. If it is determined that any of the following activities will be funded by the grant, the grantee agrees to contact BJA.

    The grantee understands that this special condition applies to its following new activities whether or not they are being specifically funded with these grant funds. That is, as long as the activity is being conducted by the grantee, a subgrantee, or any third party and the activity needs to be undertaken in order to use these grant funds, this special condition must first be met. The activities covered by this special condition are:
    a. New construction;
    b. Minor renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places;
    c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size;
    d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments; and
    e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

    The grantee understands and agrees that complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. The grantee further understands and agrees to the requirements for implementation of a Mitigation Plan, as detailed at http://www.ojp.usdoj.gov/BJA/resource/nepa.html, for programs relating to methamphetamine laboratory operations.

    Application of This Special Condition to Grantee's Existing Programs or Activities: For any of the grantee's or its subgrantees' existing programs or activities that will be funded by these grant funds, the grantee, upon specific request from BJA, agrees to cooperate with BJA in any preparation by BJA of a national or program environmental assessment of that funded program or activity.

34. The recipient is required to establish a trust fund account. (The trust fund may or may not be an interest-bearing account.) The fund, including any interest, may not be used to pay debts or expenses incurred by other activities beyond the scope of the Edward Byrne Memorial Justice Assistance Grant Program (JAG). The recipient also agrees to obligate the grant funds in the trust fund (including any interest earned) during the period of the grant and expend within 90 days thereafter. Any unobligated or unexpended funds, including interest earned, must be returned to the Office of Justice Programs at the time of closeout.

SPECIAL CONDITIONS

35. JAG funds may be used to purchase vests for an agency, but they may not be used as the 50% match for purposes of the Bulletproof Vest Partnership (BVP) program.

36. Ballistic-resistant and stab-resistant body armor purchased with JAG funds may be purchased at any threat level, make or model, from any distributor or manufacturer, as long as the vests have been tested and found to comply with applicable National Institute of Justice ballistic or stab standards and are listed on the NIJ Compliant Body Armor Model List (http://nij.gov). In addition, ballistic-resistant and stab-resistant body armor purchased must be American-made. The latest NIJ standard information can be found here: http://www.nij.gov/topics/technology/body-armor/safety-initiative.htm.

37. The recipient agrees to submit a signed certification that all law enforcement agencies receiving vests purchased with JAG funds have a written "mandatory wear" policy in effect. Fiscal agents and state agencies must keep signed certifications on file for any subrecipients planning to utilize JAG funds for ballistic-resistant and stab-resistant body armor purchases. This policy must be in place for at least all uniformed officers before any JAG funding can be used by the agency for body armor. There are no requirements regarding the nature of the policy other than it be a mandatory wear policy for all uniformed officers while on duty.

38. The recipient agrees to monitor subawards under this JAG award in accordance with all applicable statutes, regulations, OMB circulars, and guidelines, including the DOJ Financial Guide, and to include the applicable conditions of this award in any subaward. The recipient is responsible for oversight of subrecipient spending and monitoring of specific outcomes and benefits attributable to use of JAG funds by subrecipients. The recipient agrees to submit, upon request, documentation of its policies and procedures for monitoring of subawards under this award.

39. The recipient agrees that funds received under this award will not be used to supplant State or local funds, but will be used to increase the amounts of such funds that would, in the absence of Federal funds, be made available for law enforcement activities.

40. Award recipients must submit quarterly Federal Financial Reports (SF-425) and semi-annual performance reports through GMS (https://grants.ojp.usdoj.gov). Consistent with the Department's responsibilities under the Government Performance and Results Act (GPRA), P.L. 103-62, applicants who receive funding under this solicitation must provide data that measure the results of their work. Therefore, quarterly performance metrics reports must be submitted through BJA's Performance Measurement Tool (PMT) website (www.bjaperformancetools.org). For more detailed information on reporting and other JAG requirements, refer to the JAG reporting requirements webpage. Failure to submit required JAG reports by established deadlines may result in the freezing of grant funds and future High Risk designation.

41. Any law enforcement agency receiving direct or sub-awarded JAG funding must submit quarterly accountability metrics data related to training that officers have received on the use of force, racial and ethnic bias, de-escalation of conflict, and constructive engagement with the public.

42. BJA strongly encourages the recipient to submit annual (or more frequent) JAG success stories. To submit a success story, sign in to your My BJA account at https://www.bja.gov/Login.aspx to access the Success Story Submission form. If you do not yet have a My BJA account, please register at https://www.bja.gov/profile.aspx. Once you register, one of the available areas on your My BJA page will be "My Success Stories". Within this box, you will see an option to add a Success Story. Once reviewed and approved by BJA, all success stories will appear on the new BJA Success Story web page at https://www.bja.gov/SuccessStoryList.aspx.

SPECIAL CONDITIONS

43. Recipient understands and agrees that award funds may not be used for items that are listed on the Controlled Expenditure List at the time of purchase or acquisition, including as the list may be amended from time to time, without explicit written prior approval from BJA. The Controlled Expenditure List, and instructions on how to request approval for purchase or acquisitions may be accessed here: https://www.bja.gov/funding/JAGControlledPurchaseList.pdf

44. The recipient understands that, pursuant to recommendation 2.1 of Executive Order 13688, law enforcement agencies that acquire controlled equipment through Federal programs must adopt robust and specific written policies and protocols governing General Policing Standards and Specific Controlled Equipment Standards. General Policing Standards includes policies on (a) Community Policing; (b) Constitutional Policing; and (c) Community Input and Impact Considerations. Specific Controlled Equipment Standards includes policies specifically related to (a) Appropriate Use of Controlled Equipment; (b) Supervision of Use; (c) Effectiveness Evaluation; (d) Auditing and Accountability; and (e) Transparency and Notice Considerations. Upon OJP's request, the recipient agrees to provide a copy of the General Policing Standards and Specific Controlled Equipment Standards, and any related policies and protocols.

45. Recipient understands and agrees that the purchase or acquisition of any item on the Controlled Expenditure List at the time of purchase or acquisition, including as the list may be amended from time to time, with award funds by an agency will trigger a requirement that the agency collect and retain (for at least 3 years) certain information about the use of 1) any federally-acquired Controlled Equipment in the agency's inventory, and 2) any other controlled equipment in the same category as the federally-acquired controlled equipment in the agency's inventory, regardless of source; and make that information available to BJA upon request. Details about what information must be collected and retained may be accessed here: https://www.whitehouse.gov/sites/default/files/docs/le_equipment_wg_final_report_final.pdf

46. Recipient understands and agrees that failure to comply with conditions related to Prohibited or Controlled Expenditures may result in a prohibition from further Controlled Expenditure approval under this or other federal awards.

47. Recipient understands and agrees that award funds may not be used for items that are listed on the Prohibited Expenditure List at the time of purchase or acquisition, including as the list may be amended from time to time. The Prohibited Expenditure list may be accessed here: https://www.bja.gov/funding/JAGControlledPurchaseList.pdf.

48. Recipient understands and agrees that, notwithstanding 2 CFR § 200.313, no equipment listed on the Controlled Expenditure List that is purchased under this award may be transferred or sold to a third party, except as described below:

    a. Agencies may transfer or sell any controlled equipment, except riot helmets and riot shields, to a Law Enforcement Agency (LEA) after obtaining prior written approval from BJA. As a condition of that approval, the acquiring LEA will be required to submit information and certifications to BJA as if it was requesting approval to use award fund for the initial purchase of items on the Controlled Expenditure List.
    b. Agencies may not transfer or sell any riot helmets or riot shields purchased under this award.
    c. Agencies may not transfer or sell any Controlled Equipment purchased under this award to non-LEAs, with the exception of fixed wing aircraft, rotary wing aircraft, and command and control vehicles. Before any such transfer or sale is finalized, the agency must obtain prior written approval from BJA. All law enforcement-related and other sensitive or potentially dangerous components, and all law enforcement insignias and identifying markings must be removed prior to transfer or sale.

    Recipient further understands and agrees to notify BJA prior to the disposal of any items on the Controlled Expenditure List purchased under this award, and to abide by any applicable laws and regulations in such disposal.

U.S. Department of Justice

Office of Justice Programs

Bureau of Justice Assistance

Washington, D.C. 20531

Memorandum To: Official Grant File

From: Orbin Terry, NEPA Coordinator

Subject: Incorporates NEPA Compliance in Further Developmental Stages for Hidalgo County

The Edward Byrne Memorial Justice Assistance Grant Program (JAG) allows states and local governments to support a broad range of activities to prevent and control crime and to improve the criminal justice system, some of which could have environmental impacts. All recipients of JAG funding must assist BJA in complying with NEPA and other related federal environmental impact analyses requirements in the use of grant funds, whether the funds are used directly by the grantee or by a subgrantee or third party. Accordingly, prior to obligating funds for any of the specified activities, the grantee must first determine if any of the specified activities will be funded by the grant.

The specified activities requiring environmental analysis are:
a. New construction;
b. Any renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places;
c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size;
d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments; and
e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

Complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. Further, for programs relating to methamphetamine laboratory operations, the preparation of a detailed Mitigation Plan will be required. For more information about Mitigation Plan requirements, please see https://www.bja.gov/Funding/nepa.html.

Please be sure to carefully review the grant conditions on your award document, as it may contain more specific information about environmental compliance.

U.S. Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

GRANT MANAGER'S MEMORANDUM, PT. I: PROJECT SUMMARY

Grant

PROJECT NUMBER
2016-DJ-BX-0021

This project is supported under FY16(BJA - JAG) 42 USC 3750, et seq.

1. STAFF CONTACT (Name & telephone number)

Carrie Booth
(202) 305-7426

2. PROJECT DIRECTOR (Name, address & telephone number)

Rey Salazar
Strategic Planning Director
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548
(956) 292-7025 ext.5426

3a. TITLE OF THE PROGRAM

2016 Edward Byrne Memorial Justice Assistance Grant Program

3b. POMS CODE (SEE INSTRUCTIONS ON REVERSE)

4. TITLE OF PROJECT

Hidalgo County Auxiliary Court

5. NAME & ADDRESS OF GRANTEE

Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

6. NAME & ADRESS OF SUBGRANTEE

7. PROGRAM PERIOD

FROM: 10/01/2015 TO: 09/30/2019

8. BUDGET PERIOD

FROM: 10/01/2015 TO: 09/30/2019

9. AMOUNT OF AWARD

$ 40,631

10. DATE OF AWARD

08/09/2016

11. SECOND YEAR'S BUDGET

12. SECOND YEAR'S BUDGET AMOUNT

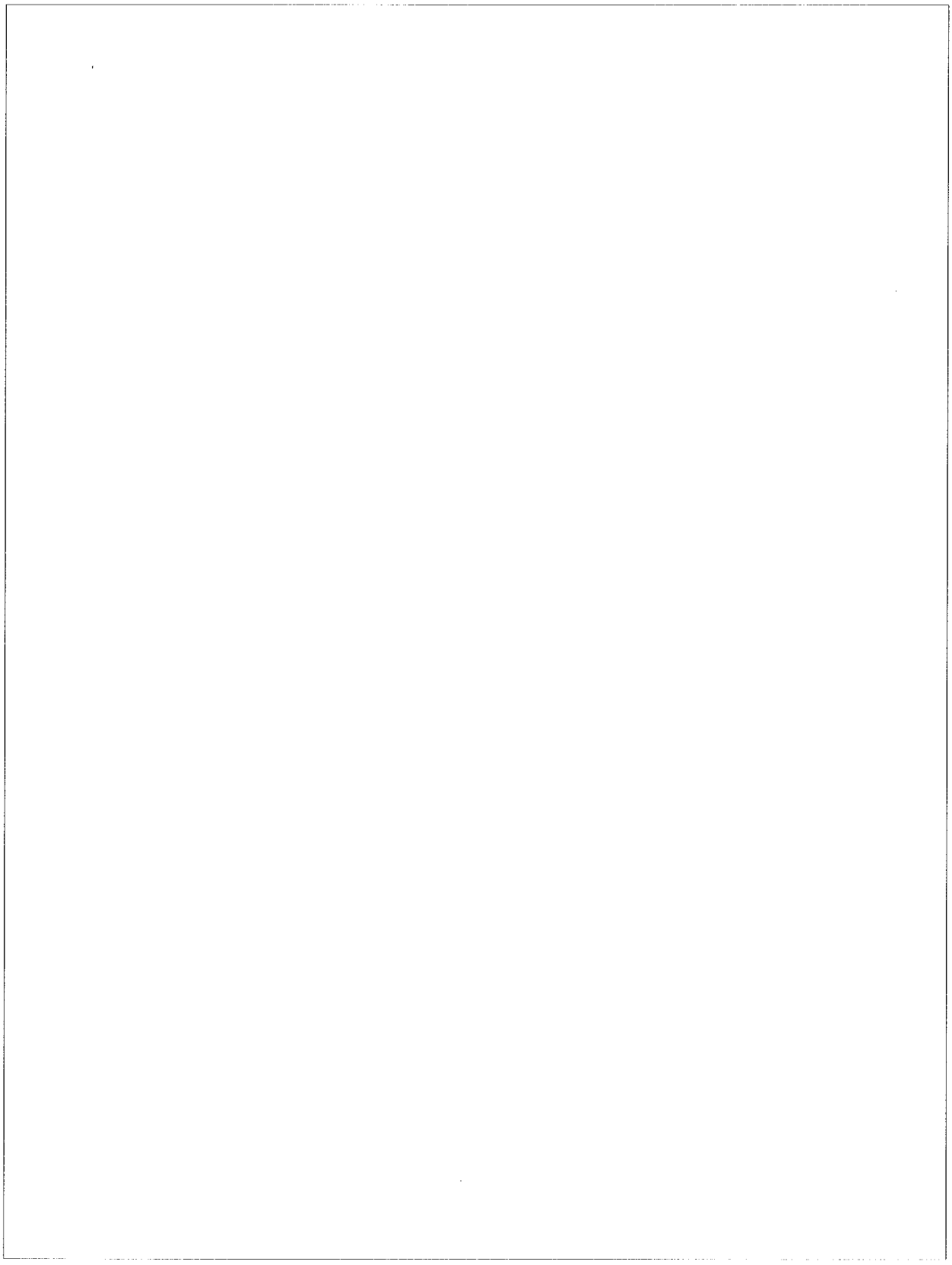
13. THIRD YEAR'S BUDGET PERIOD

14. THIRD YEAR'S BUDGET AMOUNT

15. SUMMARY DESCRIPTION OF PROJECT (See instruction on reverse)

The Edward Byrne Memorial Justice Assistance Grant Program (JAG) allows states and units of local government, including tribes, to support a broad range of activities to prevent and control crime based on their own state and local needs and conditions. Grant funds can be used for state and local initiatives, technical assistance, training, personnel, equipment, supplies, contractual support, and information systems for criminal justice, including for any one or more of the following program areas: 1) law enforcement programs; 2) prosecution and court programs; 3) prevention and education programs; 4) corrections and community corrections programs; 5) drug treatment and enforcement programs; 6) planning, evaluation, and technology improvement programs; and 7) crime victim and witness programs (other than compensation).

Hidalgo County will utilize its FY 2016 JAG Award to support one Court Coordinator position for the Hidalgo County Auxiliary Court. NCA/NCF



From: donot-reply@ojp.usdoj.gov
To: "ramon garcia" <ramon.garcia@co.hidalgo.tx.us>, "rey salazar" <rey.salazar@co.hidalgo.tx.us>
Sent: Tuesday, August 9, 2016 8:02:55 PM
Subject: GMS Award 2016-DJ-BX-0021

Congratulations. You have been awarded a grant by the Office of Justice Programs at the U.S. Department of Justice. Accepting your award is a two step process.

The first step is to designate a Financial Point of Contact (FPOC) for your award. To designate a FPOC please follow these steps:

1. Log into GMS.
2. Click the "Awards" link on the navigation bar on the left hand side.
3. Click the "View Award Instructions" link to the right of the award you want to accept.
4. A new page displays with this message near the top: "The FPOC designation must be submitted before the Award Package can be accessed." The page contains text boxes highlighted in light yellow to capture the FPOC registration information.
    a. If information for the FPOC of this award already exists in GMS, the first table entry will contain a box with the text "Available Financial Points of Contact." There is a box with a dropdown arrow to allow the selection of the FPOC. Select the name and click the "Load POC" box. GMS will populate the data entry fields with information from the user Profile. Click the button near the bottom of the page labeled "Submit."
    b. If the name of the FPOC is not one of the choices using the dropdown arrow, type the appropriate information in each of the fields. Fields with an asterisk (*) are required. Click the button near the bottom of the page labeled "Submit." The FPOC will receive an email requesting them to complete the FPOC registration.
5. Click "Yes" on the confirmation page.
6. You are allowed to assign more than one FPOC to each award. You are able to change the FPOC under the "Manage Users" link on the GMS home page.

NOTE: If you come to the Financial Point of Contact designation screen and the information in the fields are already grayed out and no "Submit" button is available, then the Financial Point of Contact has already been chosen. You will have to accept your award and await confirmation before you can change this designation. If, at that time, you need instructions on how to proceed, you can review the "Creating a Financial Point of Contact instructions" or contact the GMS Helpdesk for assistance.

The second step is to click on the "Award Document" link and download the award documents. If you choose to accept the award and ALL the special conditions, please:

1. Print the Award Document and Special Conditions.
2. Have the Award Document signed by the Authorized Grantee Official (Note: In Box 18 of the Award Document, the name and the title of the authorized grantee official are preprinted. The person named as the official in Box 18 should sign the Award

Document in Box 19 and enter the signature date in Box 19A).

3. Have the Authorized Grantee Official initial the bottom right corner of each page listing any Special Conditions of the Award Document.

4. Return BOTH the Award Document and the Special Conditions pages to the Office of Justice Programs, Control Desk by email to acceptance@usdoj.gov or by fax to (toll free) 1-866-388-3055 or (local) 202-354-4081. Select only ONE of these submission options to avoid duplicate submissions.

If you choose not to accept the award, or if you do not agree with the terms/conditions of the award and would like to discuss options, then please contact your OJP program manager, Carrie Booth at (202) 305-7426.

If the Authorized Grantee Official named on the Award Document is no longer authorized to accept this award on behalf of your organization, do not alter the pre-printed name in box 18. Please go to the Grant Adjustment Notice (GAN) link and request an adjustment to the name of the authorized official. This GAN must be approved before you can accept the award. Once the GAN to change the name of the authorizing official has been approved, you should:

1. Print the approved GAN;
2. Print the original award document;
3. Have the new approving official sign the acceptance next to the former official's name and initial the special conditions page(s);
4. Email or fax the signed acceptance, special conditions, and the approved GAN to the Control Desk as noted above in #4;

If you have programmatic questions, contact Carrie Booth at (202) 305-7426. For financial questions, contact OCFO Customer Service at 1-800-458-0786. For questions about retrieving or printing these documents, designating a Financial Point of Contact, or creating a Grant Adjustment, please contact the GMS Help Desk at 1-888-549-9901 option #3 or email them at gms.helpdesk@usdoj.gov.

Web link to GMS: https://grants.ojp.usdoj.gov

Please follow these links to access important OJP instructions:

Creating a financial point of contact instructions:
http://www.ojp.usdoj.gov/funding/pdfs/fsr_user_manual.pdf

Post Award Instructions:
http://www.ojp.usdoj.gov/funding/pdfs/post_award_instructions.pdf

OJP Financial Guide: http://www.ojp.usdoj.gov/financialguide/

Please do not reply to this message. You can contact your program manager Carrie Booth at (202) 305-7426.

DATE: September 13, 2016

DEPARTMENT HEAD: Sergio Cruz

DEPARTMENT NAME: Dept. of Budget & Mgmt. for Auxiliary Court - FY 16 Justice Assitance Grant (JAG) - (1282)

ACCOUNT NUMBER: 6-1282-412-00-115-047-9-XXX

Contact Person: Rolando Garcia **Ph#:** (956) 292-7025 Ext. 5412

2016
Appropriation

AI#-56087

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1282-412-00-115-047-9-113	JAG-Salaries - F/T Employees	34,022.00
6-1282-412-00-115-047-9-115	JAG-Longevity Pay	553.00
6-1282-412-00-115-047-9-220	JAG-FICA	2,350.00
6-1282-412-00-115-047-9-230	JAG-Retirement	3,457.00
6-1282-412-00-115-047-9-250	JAG-Unemployment Compensation	184.00
6-1282-412-00-115-047-9-260	JAG-Worker's Compensation	65.00
	Total Appropriation	
6-1282-331-11-115-047-9-000	Justice Assistance Grant - Revenue	40,631.00
	Total Revenue	
	TOTAL BUDGET INCREASE (DECREASE)	$ 40,631.00

REASON: To appropriate the FY 2016 Edward Byrne Justice Assistance Grant (JAG) Program Award. Health and Life Insurance expenditures will be reclassified to general fund.

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

COUNTY of HIDALGO

EDINBURG, TEXAS 78539

HIDALGO COUNTY AUDITOR'S OFFICE
Hidalgo County Administration Building
2808 South Business Highway 281
Edinburg, Texas 78539-6243
PHONE: (956) 318-2511
FAX: (956) 318-2577
WEBSITE: www.co.hidalgo.tx.us/auditor

September 9, 2015

The Honorable Ramon Garcia, Hidalgo County Judge
The Honorable A.C. Cuellar, Jr., Commissioner, Precinct No. 1
The Honorable Eduardo "Eddie" Cantu, Commissioner, Precinct No. 2
The Honorable Jose M. Flores, Commissioner, Precinct No. 3
The Honorable Joseph Palacios, Commissioner, Precinct No. 4

RE: Certification of Revenue

Dear Judge and Commissioners:

Pursuant to Local Government Code § 111.0706 SPECIAL BUDGET FOR GRANT OR AID MONEY:

> The county auditor shall certify to the commissioners' court the receipt of all public or private grant or aid money that is available for disbursement in a fiscal year but not included in the budget for that particular fiscal year. On certification, the court shall adopt a special budget for the limited purpose of spending the grant or aid money for its intended purpose.

I, Ray Eufracio, County Auditor of Hidalgo County, certify to the Hidalgo County Commissioners Court the receipt of the following grant award from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance. These funds may now be made available by creating a new special budget or amending a current budget for its intended purposes.

AMOUNT	PURPOSE
$40,631.00	Award No. 2016-DJ-BX-0021 Hidalgo County FY 2019 JAG Project

CERTIFIED BY:

Raymundo Eufracio, CPA
Hidalgo County Auditor

9/12/16
Date

THE COUNTY OF HIDALGO

HIDALGO COUNTY DISTRICT JUDGES

LUIS M. SINGLETERRY, JUDGE, 92ND D.C. | RODOLFO DELGADO, JUDGE, 93RD D.C. | J. R. "BOBBY" FLORES, JUDGE, 138TH D.C. | ROSE GUERRA REYNA, JUDGE, 206TH D.C. | JUAN R. PARTIDA, JUDGE, 275TH D.C. | MARIO E. RAMIREZ, JR., JUDGE, 332ND D.C. | NOE GONZALEZ, JUDGE, 370TH D.C. OVERSEER | LETICIA LOPEZ, JUDGE, 389TH D.C. | AIDA SALINAS FLORES, JUDGE, 398TH D.C. | ISRAEL RAMON, JR., JUDGE, 430TH D.C. | JESSE CONTRERAS, JUDGE, 449TH D.C.

AI-56087 **Budget and Management 39. B.**
CC - REGULAR
Meeting Date: 09/13/2016
Submitted By: Rolando Garcia, BUDGET & MANAGEMENT
Department: BUDGET & MANAGEMENT

Information

CAPTION

FY 2016 JAG Grant (1282):
1. Approval to accept the FY16 Edward Byrne Memorial Justice Assistance Grant Award (JAG) in the amount of $40,631.00
2. Approval of Certification of Revenues by the County Auditor for the FY16 Edward Byrne Memorial Justice Assistance Grant Award (JAG).
3. Approval of 2016 appropriation of funds for the FY16 (JAG) grant
4. Approval to revise the Salary Schedule with Commissioners Court approval.

BACKGROUND

FY 16 JAG funds will cover salaries, fringe benefits and other allowances (Court Coordinator - Auxiliary Court) for approximately 7.3 months (Sept. 2016 - Feb. 2017)

The award should be **signed** by the authorized official (County Judge). The Special Conditions portion of the award should be **initialed** by (County Judge) on the **bottom right corner of each page.**

Award# 2016-DJ-BX-0021 for period from 10/01/2015 to 09/30/2019

Fiscal Impact

FISCAL YEAR: **ACCT. #:** 6-1282-412-00-115-047-9-XXX
FUNDS AVAILABLE Y/N?: YES **MATCHING FUNDS Y/N?:** NO
BUDGETARY IMPACT:
Appropriation of funds in the total amount of $40,631.00
Revenue account 6-1282-331-11-115-047-9-000 Justice Assistance Grant - Revenue
No local cash match required
Note: Health and Life Insurance expenditures will be reclassified to general fund

Attachments

Award Documents
Email Award Notice
Appropriation

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 03:52 PM

Final Approval
Form Started By: Rolando Garcia Started On: 08/26/2016 02:24 PM

HIDALGO COUNTY
texas

Department of
Budget & Management
2818 S. Business Hwy. 281
Edinburg, Texas 78539
Office: (956) 292-7025
Fax: (956) 292-7034
www.co.hidalgo.tx.us

Memorandum

To: Ray Eufracio, CPA, County Auditor

From: Sergio Cruz, Budget Officer SC

Date: September 08, 2016

Subject: FY 16 Edward Byrne Memorial Justice Assistance Grant (JAG) – Certification of Revenues

Cc: Linda Fong, First Assistant County Auditor
Becky Luna, Director of Accounting Division

Please let this memo serve as a request for a Certification of Revenues letter from your office in relation to FY 16 Edward Byrne Memorial Justice Assistance Grant (JAG)

The total amount requested is $40,631.00

The agenda item to approve the certification of revenues and appropriation is AI#56087 for 09/13/16.

Thank You for your prompt attention on this matter. If you have any questions, please do not hesitate to call me at 956-292-7025 ext.5424 or Rolando Garcia at ext. 5412

U.S. Department of Justice

Office of Justice Programs

Bureau of Justice Assistance

Office of Justice Programs *Washington, D.C. 20531*

August 9, 2016

The Honorable Ramon Garcia
Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

Dear Judge Garcia:

On behalf of Attorney General Loretta Lynch, it is my pleasure to inform you that the Office of Justice Programs has approved your application for funding under the FY 16 Edward Byrne Memorial Justice Assistance Grant (JAG) Program - Local Solicitation in the amount of $40,631 for Hidalgo County.

Enclosed you will find the Grant Award and Special Conditions documents. This award is subject to all administrative and financial requirements, including the timely submission of all financial and programmatic reports, resolution of all interim audit findings, and the maintenance of a minimum level of cash-on-hand. Should you not adhere to these requirements, you will be in violation of the terms of this agreement and the award will be subject to termination for cause or other administrative action as appropriate.

If you have questions regarding this award, please contact:

- Program Questions, Carrie Booth, Program Manager at (202) 305-7426; and
- Financial Questions, the Office of the Chief Financial Officer, Customer Service Center (CSC) at (800) 458-0786, or you may contact the CSC at ask.ocfo@usdoj.gov.

Congratulations, and we look forward to working with you.

Sincerely,

Denise O'Donnell
Director

Enclosures

OFFICE FOR CIVIL RIGHTS

Office of Justice Programs

U.S. Department of Justice

810 7th Street, NW
Washington, DC 20531

Tel: (202) 307-0690
TTY: (202) 307-2027
E-mail: askOCR@usdoj.gov
Website: www.ojp.usdoj.gov/ocr

August 9, 2016

The Honorable Ramon Garcia
Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

Dear Judge Garcia:

Congratulations on your recent award. In establishing financial assistance programs, Congress linked the receipt of federal funding to compliance with federal civil rights laws. The Office for Civil Rights (OCR), Office of Justice Programs (OJP), U.S. Department of Justice (DOJ) is responsible for ensuring that recipients of financial assistance from the OJP, the Office of Community Oriented Policing Services (COPS), and the Office on Violence Against Women (OVW) comply with the applicable federal civil rights laws. We at the OCR are available to help you and your organization meet the civil rights requirements that come with DOJ funding.

Ensuring Access to Federally Assisted Programs

Federal laws that apply to recipients of financial assistance from the DOJ prohibit discrimination on the basis of race, color, national origin, religion, sex, or disability in funded programs or activities, not only in employment but also in the delivery of services or benefits. A federal law also prohibits recipients from discriminating on the basis of age in the delivery of services or benefits.

In March of 2013, President Obama signed the Violence Against Women Reauthorization Act of 2013. The statute amends the Violence Against Women Act of 1994 (VAWA) by including a nondiscrimination grant condition that prohibits discrimination based on actual or perceived race, color, national origin, religion, sex, disability, sexual orientation, or gender identity. The new nondiscrimination grant condition applies to certain programs funded after October 1, 2013. The OCR and the OVW have developed answers to some frequently asked questions about this provision to assist recipients of VAWA funds to understand their obligations. The Frequently Asked Questions are available at http://ojp.gov/about/ocr/vawafaqs.htm.

Enforcing Civil Rights Laws

All recipients of federal financial assistance, regardless of the particular funding source, the amount of the grant award, or the number of employees in the workforce, are subject to prohibitions against unlawful discrimination. Accordingly, the OCR investigates recipients that are the subject of discrimination complaints from both individuals and groups. In addition, based on regulatory criteria, the OCR selects a number of recipients each year for compliance reviews, audits that require recipients to submit data showing that they are providing services equitably to all segments of their service population and that their employment practices meet equal opportunity standards.

Providing Services to Limited English Proficiency (LEP) Individuals

In accordance with DOJ guidance pertaining to Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, recipients of federal financial assistance must take reasonable steps to provide meaningful access to their programs and activities for persons with limited English proficiency (LEP). See U.S. Department of Justice, Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons, 67 Fed. Reg. 41,455 (2002). For more information on the civil rights responsibilities that recipients have in providing language services to LEP individuals, please see the website http://www.lep.gov.

Ensuring Equal Treatment for Faith-Based Organizations

The DOJ regulation, Equal Treatment for Faith-Based Organizations, 28 C.F.R. pt. 38, requires State Administering Agencies (SAAs) to treat faith-based organizations the same as any other applicant or recipient. The regulation prohibits SAAs from making awards or grant administration decisions on the basis of an organization's religious character or affiliation, religious name, or the religious composition of its board of directors.

The regulation also prohibits faith-based organizations from using financial assistance from the DOJ to fund inherently (or explicitly) religious activities. While faith-based organizations can engage in non-funded inherently religious activities, they must hold them separately from the program funded by the DOJ, and recipients cannot compel beneficiaries to participate in them. The Equal Treatment Regulation also makes clear that organizations participating in programs funded by the DOJ are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. For more information on the regulation, please see the OCR's website at http://www.ojp.usdoj.gov/about/ocr/equal_fbo.htm.

SAAs and faith-based organizations should also note that the Omnibus Crime Control and Safe Streets Act (Safe Streets Act) of 1968, as amended, 42 U.S.C. § 3789d(c); the Victims of Crime Act of 1984, as amended, 42 U.S.C. § 10604(e); the Juvenile Justice and Delinquency Prevention Act of 1974, as amended, 42 U.S.C. § 5672(b); and VAWA, Pub. L. No. 113-4, sec. 3(b)(4), 127 Stat. 54, 61-62 (to be codified at 42 U.S.C. § 13925(b)(13)) contain prohibitions against discrimination on the basis of religion in employment. Despite these nondiscrimination provisions, the DOJ has concluded that it may construe the Religious Freedom Restoration Act (RFRA) on a case-by-case basis to permit some faith-based organizations to receive DOJ funds while taking into account religion when hiring staff, even if the statute that authorizes the funding program generally forbids recipients from considering religion in employment decisions. Please consult with the OCR if you have any questions about the regulation or the application of RFRA to the statutes that prohibit discrimination in employment.

Using Arrest and Conviction Records in Making Employment Decisions

The OCR issued an advisory document for recipients on the proper use of arrest and conviction records in making hiring decisions. See Advisory for Recipients of Financial Assistance from the U.S. Department of Justice on the U.S. Equal Employment Opportunity Commission's Enforcement Guidance: Consideration of Arrest and Conviction Records in Employment Decisions Under Title VII of the Civil Rights Act of 1964 (June 2013), available at http://www.ojp.usdoj.gov//about/ocr/pdfs/UseofConviction_Advisory.pdf. Recipients should be mindful that the misuse of arrest or conviction records to screen either applicants for employment or employees for retention or promotion may have a disparate impact based on race or national origin, resulting in unlawful employment discrimination. In light of the Advisory, recipients should consult local counsel in reviewing their employment practices. If warranted, recipients should also incorporate an analysis of the use of arrest and conviction records in their Equal Employment Opportunity Plans (EEOPs) (see below).

Complying with the Safe Streets Act

An organization that is a recipient of financial assistance subject to the nondiscrimination provisions of the Safe Streets Act, must meet two obligations: (1) complying with the federal regulation pertaining to the development of an EEOP (see 28 C.F.R. pt. 42, subpt. E) and (2) submitting to the OCR findings of discrimination (see 28 C.F.R. §§ 42.204(c), .205(c)(5)).

Meeting the EEOP Requirement

If your organization has less than fifty employees or receives an award of less than $25,000 or is a nonprofit organization, a medical institution, an educational institution, or an Indian tribe, then it is exempt from the EEOP requirement. To claim the exemption, your organization must complete and submit Section A of the Certification Form, which is available online at http://www.ojp.usdoj.gov/about/ocr/pdfs/cert.pdf.

If your organization is a government agency or private business and receives an award of $25,000 or more, but less than $500,000, and has fifty or more employees (counting both full- and part-time employees but excluding political appointees), then it has to prepare a Utilization Report (formerly called an EEOP Short Form), but it does not have to submit the report to the OCR for review. Instead, your organization has to maintain the Utilization Report on file and make it available for review on request. In addition, your organization has to complete Section B of the Certification Form and return it to the OCR. The Certification Form is available at http://www.ojp.usdoj.gov/about/ocr/pdfs/cert.pdf.

If your organization is a government agency or private business and has received an award for $500,000 or more and has fifty or more employees (counting both full- and part-time employees but excluding political appointees), then it has to prepare a Utilization Report (formerly called an EEOP Short Form) and submit it to the OCR for review within sixty days from the date of this letter. For assistance in developing a Utilization Report, please consult the OCR's website at http://www.ojp.usdoj.gov/about/ocr/eeop.htm. In addition, your organization has to complete Section C of the Certification Form and return it to the OCR. The Certification Form is available at http://www.ojp.usdoj.gov/about/ocr/pdfs/cert.pdf.

To comply with the EEOP requirements, you may request technical assistance from an EEOP specialist at the OCR by telephone at (202) 307-0690, by TTY at (202) 307-2027, or by e-mail at EEOsubmisson@usdoj.gov.

Meeting the Requirement to Submit Findings of Discrimination

If in the three years prior to the date of the grant award, your organization has received an adverse finding of discrimination based on race, color, national origin, religion, or sex, after a due-process hearing, from a state or federal court or from a state or federal administrative agency, your organization must send a copy of the finding to the OCR.

Ensuring the Compliance of Subrecipients

SAAs must have standard assurances to notify subrecipients of their civil rights obligations, written procedures to address discrimination complaints filed against subrecipients, methods to monitor subrecipients' compliance with civil rights requirements, and a program to train subrecipients on applicable civil rights laws. In addition, SAAs must submit to the OCR every three years written Methods of Administration (MOA) that summarize the policies and procedures that they have implemented to ensure the civil rights compliance of subrecipients. For more information on the MOA requirement, see http://www.ojp.usdoj.gov/funding/other_requirements.htm.

If the OCR can assist you in any way in fulfilling your organization's civil rights responsibilities as a recipient of federal financial assistance, please contact us.

Sincerely,

Michael L. Alston
Director

cc: Grant Manager
Financial Analyst

U.S. Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Grant

1. RECIPIENT NAME AND ADDRESS (Including Zip Code)

Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

4. AWARD NUMBER: 2016-DJ-BX-0021

5. PROJECT PERIOD: FROM 10/01/2015 TO 09/30/2019

BUDGET PERIOD: FROM 10/01/2015 TO 09/30/2019

6. AWARD DATE 08/09/2016

7. ACTION: Initial

2a. GRANTEE IRS/VENDOR NO.
746000717

8. SUPPLEMENT NUMBER
00

2b. GRANTEE DUNS NO.
103110834

9. PREVIOUS AWARD AMOUNT $ 0

3. PROJECT TITLE
Hidalgo County Auxiliary Court

10. AMOUNT OF THIS AWARD $ 40,631

11. TOTAL AWARD $ 40,631

12. SPECIAL CONDITIONS

THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH ON THE ATTACHED PAGE(S).

13. STATUTORY AUTHORITY FOR GRANT

This project is supported under FY16(BJA - JAG) 42 USC 3750, et seq.

14. CATALOG OF DOMESTIC FEDERAL ASSISTANCE (CFDA Number)

16.738 - Edward Byrne Memorial Justice Assistance Grant Program

15. METHOD OF PAYMENT

GPRS

[redacted] AGENCY APPROVAL [redacted]

16. TYPED NAME AND TITLE OF APPROVING OFFICIAL

Denise O'Donnell
Director

17. SIGNATURE OF APPROVING OFFICIAL

[redacted] GRANTEE ACCEPTANCE [redacted]

18. TYPED NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL

Ramon Garcia
Judge

19. SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL

19A. DATE

[redacted] AGENCY USE ONLY [redacted]

20. ACCOUNTING CLASSIFICATION CODES

FISCAL YEAR	FUND CODE	BUD. ACT.	OFC.	DIV. REG.	SUB.	POMS	AMOUNT
X	B	DJ	80	00	00		40631

21. RDJUGT0027

OJP FORM 4000/2 (REV. 5-87) PREVIOUS EDITIONS ARE OBSOLETE.

OJP FORM 4000/2 (REV. 4-88)

PROJECT NUMBER 2016-DJ-BX-0021 AWARD DATE 08/09/2016

SPECIAL CONDITIONS

1. Applicability of Part 200 Uniform Requirements

The Uniform Administrative Requirements, Cost Principles, and Audit Requirements in 2 C.F.R. Part 200, as adopted and supplemented by the Department of Justice (DOJ) in 2 C.F.R. Part 2800 (together, the "Part 200 Uniform Requirements") apply to this 2016 award from the Office of Justice Programs (OJP).

The Part 200 Uniform Requirements were first adopted by DOJ on December 26, 2014. If this 2016 award supplements funds previously awarded by OJP under the same award number (e.g., funds awarded in 2014 or earlier years), the Part 200 Uniform Requirements apply with respect to all funds under that award number (regardless of the award date, and regardless of whether derived from the initial award or a supplemental award) that are obligated on or after the acceptance date of this 2016 award.

For more information and resources on the Part 200 Uniform Requirements as they relate to OJP awards and subawards ("subgrants"), see the Office of Justice Programs (OJP) website at http://ojp.gov/funding/Part200UniformRequirements.htm.

In the event that an award-related question arises from documents or other materials prepared or distributed by OJP that may appear to conflict with, or differ in some way from, the provisions of the Part 200 Uniform Requirements, the recipient is to contact OJP promptly for clarification.

2. Compliance with DOJ Grants Financial Guide

The recipient agrees to comply with the Department of Justice Grants Financial Guide as posted on the OJP website (currently, the "2015 DOJ Grants Financial Guide"), including any updated version that may be posted during the period of performance.

3. Requirements related to "de minimis" indirect cost rate

A recipient that is eligible under the Part 200 Uniform Requirements and other applicable law to use the "de minimis" indirect cost rate described in 2 C.F.R. 200.414(f), and that elects to use the "de minimis" indirect cost rate, must advise OJP in writing of both its eligibility and its election, and must comply with all associated requirements in the Part 200 Uniform Requirements. The "de minimis" rate may be applied only to modified total direct costs (MTDC) as defined by the Part 200 Uniform Requirements.

4. Requirement to report potentially duplicative funding

If the recipient currently has other active awards of federal funds, or if the recipient receives any other award of federal funds during the period of performance for this award, the recipient promptly must determine whether funds from any of those other federal awards have been, are being, or are to be used (in whole or in part) for one or more of the identical cost items for which funds are provided under this award. If so, the recipient must promptly notify the DOJ awarding agency (OJP or OVW, as appropriate) in writing of the potential duplication, and, if so requested by DOJ awarding agency, must seek a budget-modification or change-of-project-scope grant adjustment notice (GAN) to eliminate any inappropriate duplication of funding.

SPECIAL CONDITIONS

5. Requirements related to System for Award Management and Unique Entity Identifiers

   The recipient must comply with applicable requirements regarding the System for Award Management (SAM), currently accessible at http://www.sam.gov. This includes applicable requirements regarding registration with SAM, as well as maintaining the currency of information in SAM.

   The recipient also must comply with applicable restrictions on subawards ("subgrants") to first-tier subrecipients (first-tier "subgrantees"), including restrictions on subawards to entities that do not acquire and provide (to the recipient) the unique entity identifier required for SAM registration.

   The details of the recipient's obligations related to SAM and to unique entity identifiers are posted on the OJP web site at http://ojp.gov/funding/Explore/SAM.htm (Award condition: System for Award Management (SAM) and Universal Identifier Requirements), and are incorporated by reference here.

   This special condition does not apply to an award to an individual who received the award as a natural person (i.e., unrelated to any business or non-profit organization that he or she may own or operate in his or her name).

6. Requirements pertaining to prohibited conduct related to trafficking in persons (including reporting requirements and OJP authority to terminate award)

   The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable requirements (including requirements to report allegations) pertaining to prohibited conduct related to the trafficking of persons, whether on the part of recipients, subrecipients ("subgrantees"), or individuals defined (for purposes of this condition) as "employees" of the recipient or of any subrecipient.
   The details of the recipient's obligations related to prohibited conduct related to trafficking in persons are posted on the OJP web site at http://ojp.gov/funding/Explore/ProhibitedConduct-Trafficking.htm (Award condition: Prohibited conduct by recipients and subrecipients related to trafficking in persons (including reporting requirements and OJP authority to terminate award)), and are incorporated by reference here.

7. Compliance with applicable rules regarding approval, planning, and reporting of conferences, meetings, trainings, and other events

   The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable laws, regulations, policies, and official DOJ guidance (including specific cost limits, prior approval and reporting requirements, where applicable) governing the use of federal funds for expenses related to conferences (as that term is defined by DOJ), including the provision of food and/or beverages at such conferences, and costs of attendance at such conferences.

   Information on the pertinent DOJ definition of conferences and the rules applicable to this award appears in the DOJ Grants Financial Guide (currently, as section 3.10 of "Postaward Requirements" in the "2015 DOJ Grants Financial Guide").

8. Requirement for data on performance and effectiveness under the award

   The recipient must collect and maintain data that measure the performance and effectiveness of activities under this award. The data must be provided to OJP in the manner (including within the timeframes) specified by OJP in the program solicitation or other applicable written guidance. Data collection supports compliance with the Government Performance and Results Act (GPRA) and the GPRA Modernization Act, and other applicable laws.

SPECIAL CONDITIONS

9. OJP Training Guiding Principles

   Any training or training materials that the recipient -- or any subrecipient ("subgrantee") at any tier -- develops or delivers with OJP award funds must adhere to the OJP Training Guiding Principles for Grantees and Subgrantees, available at http://ojp.gov/funding/ojptrainingguidingprinciples.htm.

10. Effect of failure to address audit issues

    The recipient understands and agrees that the DOJ awarding agency (OJP or OVW, as appropriate) may withhold award funds, or may impose other related requirements, if (as determined by the DOJ awarding agency) the recipient does not satisfactorily and promptly address outstanding issues from audits required by the Part 200 Uniform Requirements (or by the terms of this award), or other outstanding issues that arise in connection with audits, investigations, or reviews of DOJ awards.

11. The recipient agrees to comply with any additional requirements that may be imposed by the DOJ awarding agency (OJP or OVW, as appropriate) during the period of performance for this award, if the recipient is designated as "high-risk" for purposes of the DOJ high-risk grantee list.

12. Compliance with DOJ regulations pertaining to civil rights and nondiscrimination - 28 C.F.R. Part 42

    The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable requirements of 28 C.F.R. Part 42, specifically including any applicable requirements in Subpart E of 28 C.F.R. Part 42 that relate to an equal employment opportunity program.

13. Compliance with DOJ regulations pertaining to civil rights and nondiscrimination - 28 C.F.R. Part 38

    The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable requirements of 28 C.F.R. Part 38, specifically including any applicable requirements regarding written notice to program beneficiaries and prospective program beneficiaries. Part 38 of 28 C.F.R., a DOJ regulation, was amended effective May 4, 2016.

    Among other things, 28 C.F.R. Part 38 includes rules that prohibit specific forms of discrimination on the basis of religion, a religious belief, a refusal to hold a religious belief, or refusal to attend or participate in a religious practice. Part 38 also sets out rules and requirements that pertain to recipient and subrecipient ("subgrantee") organizations that engage in or conduct explicitly religious activities, as well as rules and requirements that pertain to recipients and subrecipients that are faith-based or religious organizations.

    The text of the regulation, now entitled "Partnerships with Faith-Based and Other Neighborhood Organizations," is available via the Electronic Code of Federal Regulations (currently accessible at http://www.ecfr.gov/cgi-bin/ECFR?page=browse), by browsing to Title 28-Judicial Administration, Chapter I, Part 38, under e-CFR "current" data.

14. Restrictions on "lobbying"

    Federal funds may not be used by the recipient, or any subrecipient ("subgrantee") at any tier, either directly or indirectly, to support or oppose the enactment, repeal, modification or adoption of any law, regulation, or policy, at any level of government.

    Should any question arise as to whether a particular use of Federal funds by a recipient (or subrecipient) would or might fall within the scope of this prohibition, the recipient is to contact OJP for guidance, and may not proceed without the express prior written approval of OJP.

SPECIAL CONDITIONS

15. Compliance with general appropriations-law restrictions on the use of federal funds (FY 2016)

The recipient, and any subrecipient ("subgrantee") at any tier, must comply with all applicable restrictions on the use of federal funds set out in federal appropriations statutes. Pertinent restrictions, including from various "general provisions" in the Consolidated Appropriations Act, 2016, are set out at http://ojp.gov/funding/Explore/FY2016-AppropriationsLawRestrictions.htm, and are incorporated by reference here.

Should a question arise as to whether a particular use of federal funds by a recipient (or a subrecipient) would or might fall within the scope of an appropriations-law restriction, the recipient is to contact OJP for guidance, and may not proceed without the express prior written approval of OJP.

16. Reporting Potential Fraud, Waste, and Abuse, and Similar Misconduct

The recipient and any subrecipients ("subgrantees") must promptly refer to the DOJ Office of the Inspector General (OIG) any credible evidence that a principal, employee, agent, subrecipient, contractor, subcontractor, or other person has, in connection with funds under this award -- (1) submitted a claim that violates the False Claims Act; or (2) committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct.

Potential fraud, waste, abuse, or misconduct involving or relating to funds under this award should be reported to the OIG by-- (1) mail directed to: Office of the Inspector General, U.S. Department of Justice, Investigations Division, 950 Pennsylvania Avenue, N.W. Room 4706, Washington, DC 20530; (2) e-mail to: oig.hotline@usdoj.gov; and/or (3) the DOJ OIG hotline: (contact information in English and Spanish) at (800) 869-4499 (phone) or (202) 616-9881 (fax).

Additional information is available from the DOJ OIG website at http://www.usdoj.gov/oig.

SPECIAL CONDITIONS

17. Restrictions and certifications regarding non-disclosure agreements and related matters

No recipient or subrecipient ("subgrantee") under this award, or entity that receives a procurement contract or subcontract with any funds under this award, may require any employee or contractor to sign an internal confidentiality agreement or statement that prohibits or otherwise restricts, or purports to prohibit or restrict, the reporting (in accordance with law) of waste, fraud, or abuse to an investigative or law enforcement representative of a federal department or agency authorized to receive such information.

The foregoing is not intended, and shall not be understood by the agency making this award, to contravene requirements applicable to Standard Form 312 (which relates to classified information), Form 4414 (which relates to sensitive compartmented information), or any other form issued by a federal department or agency governing the nondisclosure of classified information.

1. In accepting this award, the recipient--

a. represents that it neither requires nor has required internal confidentiality agreements or statements from employees or contractors that currently prohibit or otherwise currently restrict (or purport to prohibit or restrict) employees or contractors from reporting waste, fraud, or abuse as described above; and

b. certifies that, if it learns or is notified that it is or has been requiring its employees or contractors to execute agreements or statements that prohibit or otherwise restrict (or purport to prohibit or restrict), reporting of waste, fraud, or abuse as described above, it will immediately stop any further obligations of award funds, will provide prompt written notification to the federal agency making this award, and will resume (or permit resumption of) such obligations only if expressly authorized to do so by that agency.

2. If the recipient does or is authorized under this award to make subawards ("subgrants"), procurement contracts, or both--

a. it represents that--

(1) it has determined that no other entity that the recipient's application proposes may or will receive award funds (whether through a subaward ("subgrant"), procurement contract, or subcontract under a procurement contract) either requires or has required internal confidentiality agreements or statements from employees or contractors that currently prohibit or otherwise currently restrict (or purport to prohibit or restrict) employees or contractors from reporting waste, fraud, or abuse as described above; and

(2) it has made appropriate inquiry, or otherwise has an adequate factual basis, to support this representation; and

b. it certifies that, if it learns or is notified that any subrecipient, contractor, or subcontractor entity that receives funds under this award is or has been requiring its employees or contractors to execute agreements or statements that prohibit or otherwise restrict (or purport to prohibit or restrict), reporting of waste, fraud, or abuse as described above, it will immediately stop any further obligations of award funds to or by that entity, will provide prompt written notification to the federal agency making this award, and will resume (or permit resumption of) such obligations only if expressly authorized to do so by that agency.

SPECIAL CONDITIONS

18. Compliance with 41 U.S.C. 4712 (including prohibitions on reprisal; notice to employees)

The recipient must comply with, and is subject to, all applicable provisions of 41 U.S.C. 4712, including all applicable provisions that prohibit, under specified circumstances, discrimination against an employee as reprisal for the employee's disclosure of information related to gross mismanagement of a federal grant, a gross waste of federal funds, an abuse of authority relating to a federal grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal grant.

The recipient also must inform its employees, in writing (and in the predominant native language of the workforce), of employee rights and remedies under 41 U.S.C. 4712.

Should a question arise as to the applicability of the provisions of 41 U.S.C. 4712 to this award, the recipient is to contact the DOJ awarding agency (OJP or OVW, as appropriate) for guidance.

19. Encouragement of policies to ban text messaging while driving

Pursuant to Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving," 74 Fed. Reg. 51225 (October 1, 2009), DOJ encourages recipients and subrecipients ("subgrantees") to adopt and enforce policies banning employees from text messaging while driving any vehicle during the course of performing work funded by this award, and to establish workplace safety policies and conduct education, awareness, and other outreach to decrease crashes caused by distracted drivers.

20. The recipient agrees to comply with OJP grant monitoring guidelines, protocols, and procedures, and to cooperate with BJA and OCFO on all grant monitoring requests, including requests related to desk reviews, enhanced programmatic desk reviews, and/or site visits. The recipient agrees to provide to BJA and OCFO all documentation necessary to complete monitoring tasks, including documentation related to any subawards made under this award. Further, the recipient agrees to abide by reasonable deadlines set by BJA and OCFO for providing the requested documents. Failure to cooperate with BJA's/OCFO's grant monitoring activities may result in sanctions affecting the recipient's DOJ awards, including, but not limited to: withholdings and/or other restrictions on the recipient's access to grant funds; referral to the Office of the Inspector General for audit review; designation of the recipient as a DOJ High Risk grantee; or termination of an award(s).

21. The recipient agrees to comply with applicable requirements to report first-tier subawards of $25,000 or more and, in certain circumstances, to report the names and total compensation of the five most highly compensated executives of the recipient and first-tier subrecipients of award funds. Such data will be submitted to the FFATA Subaward Reporting System (FSRS). The details of recipient obligations, which derive from the Federal Funding Accountability and Transparency Act of 2006 (FFATA), are posted on the Office of Justice Programs web site at http://ojp.gov/funding/Explore/FFATA.htm (Award condition: Reporting Subawards and Executive Compensation), and are incorporated by reference here. This condition, and its reporting requirement, does not apply to grant awards made to an individual who received the award as a natural person (i.e., unrelated to any business or non-profit organization that he or she may own or operate in his or her name).

22. Program income (as defined in the Part 200 Uniform Requirements) must be used in accordance with the provisions of the Part 200 Uniform Requirements. Program income earnings and expenditures both must be reported on the quarterly Federal Financial Report, SF 425.

SPECIAL CONDITIONS

23. In order to promote information sharing and enable interoperability among disparate systems across the justice and public safety community, OJP requires the grantee to comply with DOJ's Global Justice Information Sharing Initiative (DOJ's Global) guidelines and recommendations for this particular grant. Grantee shall conform to the Global Standards Package (GSP) and all constituent elements, where applicable, as described at: http://www.it.ojp.gov/gsp_grantcondition. Grantee shall document planned approaches to information sharing and describe compliance to the GSP and appropriate privacy policy that protects shared information, or provide detailed justification for why an alternative approach is recommended.

24. To avoid duplicating existing networks or IT systems in any initiatives funded by BJA for law enforcement information sharing systems which involve interstate connectivity between jurisdictions, such systems shall employ, to the extent possible, existing networks as the communication backbone to achieve interstate connectivity, unless the grantee can demonstrate to the satisfaction of BJA that this requirement would not be cost effective or would impair the functionality of an existing or proposed IT system.

25. The recipient agrees that any information technology system funded or supported by OJP funds will comply with 28 C.F.R. Part 23, Criminal Intelligence Systems Operating Policies, if OJP determines this regulation to be applicable. Should OJP determine 28 C.F.R. Part 23 to be applicable, OJP may, at its discretion, perform audits of the system, as per the regulation. Should any violation of 28 C.F.R. Part 23 occur, the recipient may be fined as per 42 U.S.C. 3789g(c)-(d). Recipient may not satisfy such a fine with federal funds.

26. Grantee agrees to comply with the requirements of 28 C.F.R. Part 46 and all Office of Justice Programs policies and procedures regarding the protection of human research subjects, including obtainment of Institutional Review Board approval, if appropriate, and subject informed consent.

27. Grantee agrees to comply with all confidentiality requirements of 42 U.S.C. section 3789g and 28 C.F.R. Part 22 that are applicable to collection, use, and revelation of data or information. Grantee further agrees, as a condition of grant approval, to submit a Privacy Certificate that is in accord with requirements of 28 C.F.R. Part 22 and, in particular, section 22.23.

28. Award recipients must verify Point of Contact(POC), Financial Point of Contact (FPOC), and Authorized Representative contact information in GMS, including telephone number and e-mail address. If any information is incorrect or has changed, a Grant Adjustment Notice (GAN) must be submitted via the Grants Management System (GMS) to document changes.

29. The grantee agrees that within 120 days of award acceptance, each current member of a law enforcement task force funded with these funds who is a task force commander, agency executive, task force officer, or other task force member of equivalent rank, will complete required online (internet-based) task force training. Additionally, all future task force members are required to complete this training once during the life of this award, or once every four years if multiple awards include this requirement. The training is provided free of charge online through BJA's Center for Task Force Integrity and Leadership (www.ctfli.org). This training addresses task force effectiveness as well as other key issues including privacy and civil liberties/rights, task force performance measurement, personnel selection, and task force oversight and accountability. When BJA funding supports a task force, a task force personnel roster should be compiled and maintained, along with course completion certificates, by the grant recipient. Additional information is available regarding this required training and access methods via BJA's web site and the Center for Task Force Integrity and Leadership (www.ctfli.org).

30. The recipient agrees to participate in BJA-sponsored training events, technical assistance events, or conferences held by BJA or its designees, upon BJA's request.

SPECIAL CONDITIONS

31. All procurement (contract) transactions under this award must be conducted in a manner that is consistent with applicable Federal, State, and tribal law, and with Federal procurement standards specified in regulations governing Federal awards to non-Federal entities. Procurement (contract) transactions should be competitively awarded unless circumstances preclude competition. Noncompetitive ("sole source") procurements by the award recipient in excess of the Simplified Acquisition Threshold (currently $150,000) set out in the Federal Acquisition Regulation must receive prior approval from the awarding agency, and must otherwise comply with rules governing such procurements found in the current edition of the DOJ Grants Financial Guide.

32. Approval of this award does not indicate approval of any consultant rate in excess of $650 per day. A detailed justification must be submitted to and approved by the Office of Justice Programs (OJP) program office prior to obligation or expenditure of such funds.

33. The grantee agrees to assist BJA in complying with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, and other related federal environmental impact analyses requirements in the use of these grant funds, either directly by the grantee or by a subgrantee. Accordingly, the grantee agrees to first determine if any of the following activities will be funded by the grant, prior to obligating funds for any of these purposes. If it is determined that any of the following activities will be funded by the grant, the grantee agrees to contact BJA.

    The grantee understands that this special condition applies to its following new activities whether or not they are being specifically funded with these grant funds. That is, as long as the activity is being conducted by the grantee, a subgrantee, or any third party and the activity needs to be undertaken in order to use these grant funds, this special condition must first be met. The activities covered by this special condition are:
    a. New construction;
    b. Minor renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places;
    c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size;
    d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments; and
    e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

    The grantee understands and agrees that complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. The grantee further understands and agrees to the requirements for implementation of a Mitigation Plan, as detailed at http://www.ojp.usdoj.gov/BJA/resource/nepa.html, for programs relating to methamphetamine laboratory operations.

    Application of This Special Condition to Grantee's Existing Programs or Activities: For any of the grantee's or its subgrantees' existing programs or activities that will be funded by these grant funds, the grantee, upon specific request from BJA, agrees to cooperate with BJA in any preparation by BJA of a national or program environmental assessment of that funded program or activity.

34. The recipient is required to establish a trust fund account. (The trust fund may or may not be an interest-bearing account.) The fund, including any interest, may not be used to pay debts or expenses incurred by other activities beyond the scope of the Edward Byrne Memorial Justice Assistance Grant Program (JAG). The recipient also agrees to obligate the grant funds in the trust fund (including any interest earned) during the period of the grant and expend within 90 days thereafter. Any unobligated or unexpended funds, including interest earned, must be returned to the Office of Justice Programs at the time of closeout.

PROJECT NUMBER 2016-DJ-BX-0021 AWARD DATE 08/09/2016

SPECIAL CONDITIONS

35. JAG funds may be used to purchase vests for an agency, but they may not be used as the 50% match for purposes of the Bulletproof Vest Partnership (BVP) program.

36. Ballistic-resistant and stab-resistant body armor purchased with JAG funds may be purchased at any threat level, make or model, from any distributor or manufacturer, as long as the vests have been tested and found to comply with applicable National Institute of Justice ballistic or stab standards and are listed on the NIJ Compliant Body Armor Model List (http://nij.gov). In addition, ballistic-resistant and stab-resistant body armor purchased must be American-made. The latest NIJ standard information can be found here: http://www.nij.gov/topics/technology/body-armor/safety-initiative.htm.

37. The recipient agrees to submit a signed certification that all law enforcement agencies receiving vests purchased with JAG funds have a written "mandatory wear" policy in effect. Fiscal agents and state agencies must keep signed certifications on file for any subrecipients planning to utilize JAG funds for ballistic-resistant and stab-resistant body armor purchases. This policy must be in place for at least all uniformed officers before any JAG funding can be used by the agency for body armor. There are no requirements regarding the nature of the policy other than it be a mandatory wear policy for all uniformed officers while on duty.

38. The recipient agrees to monitor subawards under this JAG award in accordance with all applicable statutes, regulations, OMB circulars, and guidelines, including the DOJ Financial Guide, and to include the applicable conditions of this award in any subaward. The recipient is responsible for oversight of subrecipient spending and monitoring of specific outcomes and benefits attributable to use of JAG funds by subrecipients. The recipient agrees to submit, upon request, documentation of its policies and procedures for monitoring of subawards under this award.

39. The recipient agrees that funds received under this award will not be used to supplant State or local funds, but will be used to increase the amounts of such funds that would, in the absence of Federal funds, be made available for law enforcement activities.

40. Award recipients must submit quarterly Federal Financial Reports (SF-425) and semi-annual performance reports through GMS (https://grants.ojp.usdoj.gov). Consistent with the Department's responsibilities under the Government Performance and Results Act (GPRA), P.L. 103-62, applicants who receive funding under this solicitation must provide data that measure the results of their work. Therefore, quarterly performance metrics reports must be submitted through BJA's Performance Measurement Tool (PMT) website (www.bjaperformancetools.org). For more detailed information on reporting and other JAG requirements, refer to the JAG reporting requirements webpage. Failure to submit required JAG reports by established deadlines may result in the freezing of grant funds and future High Risk designation.

41. Any law enforcement agency receiving direct or sub-awarded JAG funding must submit quarterly accountability metrics data related to training that officers have received on the use of force, racial and ethnic bias, de-escalation of conflict, and constructive engagement with the public.

42. BJA strongly encourages the recipient to submit annual (or more frequent) JAG success stories. To submit a success story, sign in to your My BJA account at https://www.bja.gov/Login.aspx to access the Success Story Submission form. If you do not yet have a My BJA account, please register at https://www.bja.gov/profile.aspx. Once you register, one of the available areas on your My BJA page will be "My Success Stories". Within this box, you will see an option to add a Success Story. Once reviewed and approved by BJA, all success stories will appear on the new BJA Success Story web page at https://www.bja.gov/SuccessStoryList.aspx.

SPECIAL CONDITIONS

43. Recipient understands and agrees that award funds may not be used for items that are listed on the Controlled Expenditure List at the time of purchase or acquisition, including as the list may be amended from time to time, without explicit written prior approval from BJA. The Controlled Expenditure List, and instructions on how to request approval for purchase or acquisitions may be accessed here: https://www.bja.gov/funding/JAGControlledPurchaseList.pdf

44. The recipient understands that, pursuant to recommendation 2.1 of Executive Order 13688, law enforcement agencies that acquire controlled equipment through Federal programs must adopt robust and specific written policies and protocols governing General Policing Standards and Specific Controlled Equipment Standards. General Policing Standards includes policies on (a) Community Policing; (b) Constitutional Policing; and (c) Community Input and Impact Considerations. Specific Controlled Equipment Standards includes policies specifically related to (a) Appropriate Use of Controlled Equipment; (b) Supervision of Use; (c) Effectiveness Evaluation; (d) Auditing and Accountability; and (e) Transparency and Notice Considerations. Upon OJP's request, the recipient agrees to provide a copy of the General Policing Standards and Specific Controlled Equipment Standards, and any related policies and protocols.

45. Recipient understands and agrees that the purchase or acquisition of any item on the Controlled Expenditure List at the time of purchase or acquisition, including as the list may be amended from time to time, with award funds by an agency will trigger a requirement that the agency collect and retain (for at least 3 years) certain information about the use of 1) any federally-acquired Controlled Equipment in the agency's inventory, and 2) any other controlled equipment in the same category as the federally-acquired controlled equipment in the agency's inventory, regardless of source; and make that information available to BJA upon request. Details about what information must be collected and retained may be accessed here: https://www.whitehouse.gov/sites/default/files/docs/le_equipment_wg_final_report_final.pdf

46. Recipient understands and agrees that failure to comply with conditions related to Prohibited or Controlled Expenditures may result in a prohibition from further Controlled Expenditure approval under this or other federal awards.

47. Recipient understands and agrees that award funds may not be used for items that are listed on the Prohibited Expenditure List at the time of purchase or acquisition, including as the list may be amended from time to time. The Prohibited Expenditure list may be accessed here: https://www.bja.gov/funding/JAGControlledPurchaseList.pdf.

48. Recipient understands and agrees that, notwithstanding 2 CFR § 200.313, no equipment listed on the Controlled Expenditure List that is purchased under this award may be transferred or sold to a third party, except as described below:

    a. Agencies may transfer or sell any controlled equipment, except riot helmets and riot shields, to a Law Enforcement Agency (LEA) after obtaining prior written approval from BJA. As a condition of that approval, the acquiring LEA will be required to submit information and certifications to BJA as if it was requesting approval to use award fund for the initial purchase of items on the Controlled Expenditure List.
    b. Agencies may not transfer or sell any riot helmets or riot shields purchased under this award.
    c. Agencies may not transfer or sell any Controlled Equipment purchased under this award to non-LEAs, with the exception of fixed wing aircraft, rotary wing aircraft, and command and control vehicles. Before any such transfer or sale is finalized, the agency must obtain prior written approval from BJA. All law enforcement-related and other sensitive or potentially dangerous components, and all law enforcement insignias and identifying markings must be removed prior to transfer or sale.

    Recipient further understands and agrees to notify BJA prior to the disposal of any items on the Controlled Expenditure List purchased under this award, and to abide by any applicable laws and regulations in such disposal.

U.S. Department of Justice

Office of Justice Programs

Bureau of Justice Assistance

Washington, D.C. 20531

Memorandum To: Official Grant File

From: Orbin Terry, NEPA Coordinator

Subject: Incorporates NEPA Compliance in Further Developmental Stages for Hidalgo County

The Edward Byrne Memorial Justice Assistance Grant Program (JAG) allows states and local governments to support a broad range of activities to prevent and control crime and to improve the criminal justice system, some of which could have environmental impacts. All recipients of JAG funding must assist BJA in complying with NEPA and other related federal environmental impact analyses requirements in the use of grant funds, whether the funds are used directly by the grantee or by a subgrantee or third party. Accordingly, prior to obligating funds for any of the specified activities, the grantee must first determine if any of the specified activities will be funded by the grant.

The specified activities requiring environmental analysis are:
a. New construction;
b. Any renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places;
c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size;
d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments; and
e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

Complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. Further, for programs relating to methamphetamine laboratory operations, the preparation of a detailed Mitigation Plan will be required. For more information about Mitigation Plan requirements, please see https://www.bja.gov/Funding/nepa.html.

Please be sure to carefully review the grant conditions on your award document, as it may contain more specific information about environmental compliance.

U.S. Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

GRANT MANAGER'S MEMORANDUM, PT. I: PROJECT SUMMARY

Grant

PROJECT NUMBER
2016-DJ-BX-0021

This project is supported under FY16(BJA - JAG) 42 USC 3750, et seq.

1. STAFF CONTACT (Name & telephone number)

Carrie Booth
(202) 305-7426

2. PROJECT DIRECTOR (Name, address & telephone number)

Rey Salazar
Strategic Planning Director
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548
(956) 292-7025 ext.5426

3a. TITLE OF THE PROGRAM

2016 Edward Byrne Memorial Justice Assistance Grant Program

3b. POMS CODE (SEE INSTRUCTIONS ON REVERSE)

4. TITLE OF PROJECT

Hidalgo County Auxiliary Court

5. NAME & ADDRESS OF GRANTEE

Hidalgo County
100 E. Cano St., 2nd Floor
Edinburg, TX 78539-4548

6. NAME & ADRESS OF SUBGRANTEE

7. PROGRAM PERIOD

FROM: 10/01/2015 TO: 09/30/2019

8. BUDGET PERIOD

FROM: 10/01/2015 TO: 09/30/2019

9. AMOUNT OF AWARD

$ 40,631

10. DATE OF AWARD

08/09/2016

11. SECOND YEAR'S BUDGET

12. SECOND YEAR'S BUDGET AMOUNT

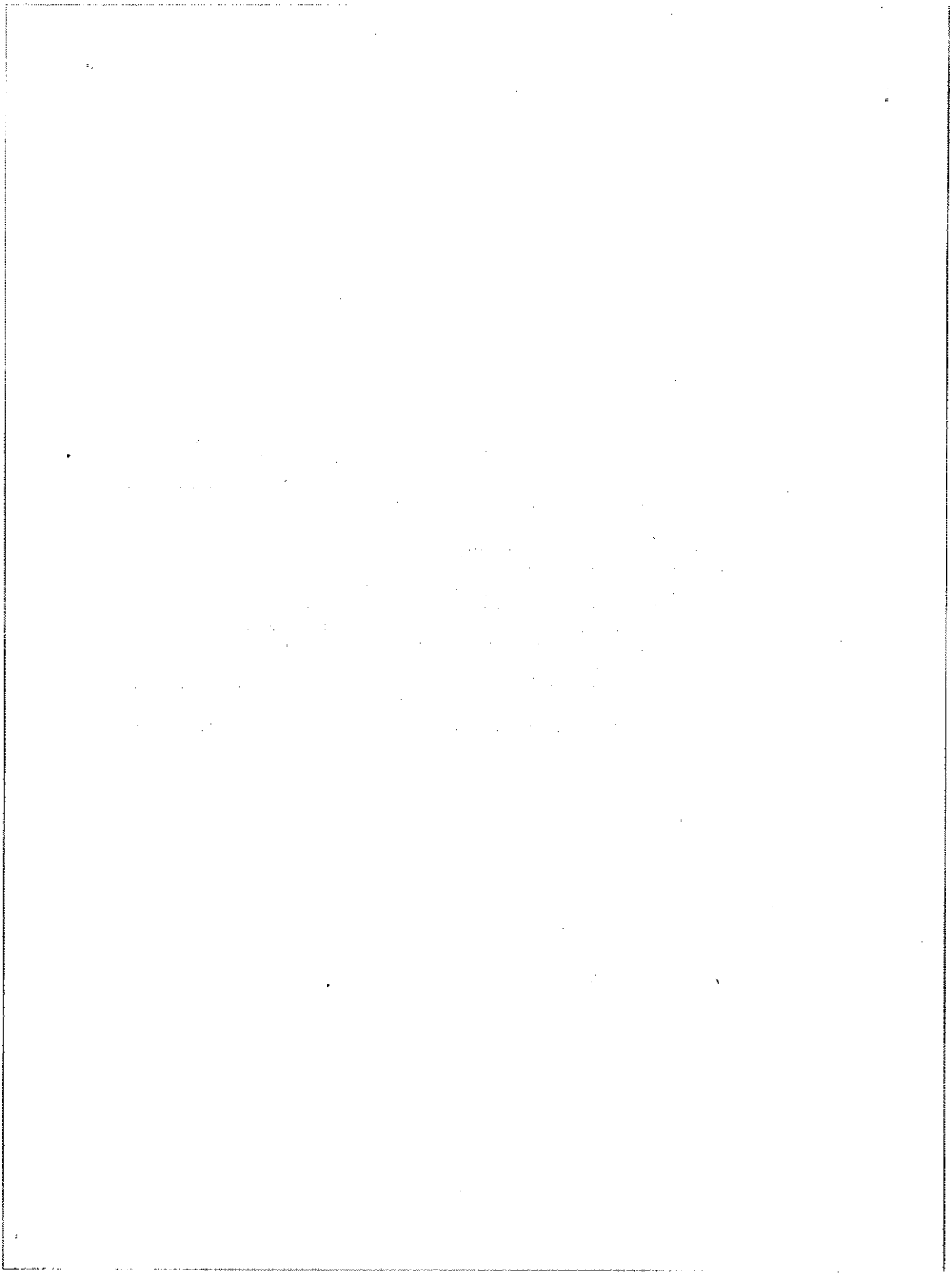
13. THIRD YEAR'S BUDGET PERIOD

14. THIRD YEAR'S BUDGET AMOUNT

15. SUMMARY DESCRIPTION OF PROJECT (See instruction on reverse)

The Edward Byrne Memorial Justice Assistance Grant Program (JAG) allows states and units of local government, including tribes, to support a broad range of activities to prevent and control crime based on their own state and local needs and conditions. Grant funds can be used for state and local initiatives, technical assistance, training, personnel, equipment, supplies, contractual support, and information systems for criminal justice, including for any one or more of the following program areas: 1) law enforcement programs; 2) prosecution and court programs; 3) prevention and education programs; 4) corrections and community corrections programs; 5) drug treatment and enforcement programs; 6) planning, evaluation, and technology improvement programs; and 7) crime victim and witness programs (other than compensation).

Hidalgo County will utilize its FY 2016 JAG Award to support one Court Coordinator position for the Hidalgo County Auxiliary Court. NCA/NCF



From: donot-reply@ojp.usdoj.gov
To: "ramon garcia" <ramon.garcia@co.hidalgo.tx.us>, "rey salazar" <rey.salazar@co.hidalgo.tx.us>
Sent: Tuesday, August 9, 2016 8:02:55 PM
Subject: GMS Award 2016-DJ-BX-0021

Congratulations. You have been awarded a grant by the Office of Justice Programs at the U.S. Department of Justice. Accepting your award is a two step process.

The first step is to designate a Financial Point of Contact (FPOC) for your award. To designate a FPOC please follow these steps:

1. Log into GMS.
2. Click the "Awards" link on the navigation bar on the left hand side.
3. Click the "View Award Instructions" link to the right of the award you want to accept.
4. A new page displays with this message near the top: "The FPOC designation must be submitted before the Award Package can be accessed." The page contains text boxes highlighted in light yellow to capture the FPOC registration information.
    a. If information for the FPOC of this award already exists in GMS, the first table entry will contain a box with the text "Available Financial Points of Contact." There is a box with a dropdown arrow to allow the selection of the FPOC. Select the name and click the "Load POC" box. GMS will populate the data entry fields with information from the user Profile. Click the button near the bottom of the page labeled "Submit."
    b. If the name of the FPOC is not one of the choices using the dropdown arrow, type the appropriate information in each of the fields. Fields with an asterisk (*) are required. Click the button near the bottom of the page labeled "Submit." The FPOC will receive an email requesting them to complete the FPOC registration.
5. Click "Yes" on the confirmation page.
6. You are allowed to assign more than one FPOC to each award. You are able to change the FPOC under the "Manage Users" link on the GMS home page.

NOTE: If you come to the Financial Point of Contact designation screen and the information in the fields are already grayed out and no "Submit" button is available, then the Financial Point of Contact has already been chosen. You will have to accept your award and await confirmation before you can change this designation. If, at that time, you need instructions on how to proceed, you can review the "Creating a Financial Point of Contact instructions" or contact the GMS Helpdesk for assistance.

The second step is to click on the "Award Document" link and download the award documents. If you choose to accept the award and ALL the special conditions, please:

1. Print the Award Document and Special Conditions.
2. Have the Award Document signed by the Authorized Grantee Official (Note: In Box 18 of the Award Document, the name and the title of the authorized grantee official are preprinted. The person named as the official in Box 18 should sign the Award

Document in Box 19 and enter the signature date in Box 19A).

3. Have the Authorized Grantee Official initial the bottom right corner of each page listing any Special Conditions of the Award Document.

4. Return BOTH the Award Document and the Special Conditions pages to the Office of Justice Programs, Control Desk by email to acceptance@usdoj.gov or by fax to (toll free) 1-866-388-3055 or (local) 202-354-4081. Select only ONE of these submission options to avoid duplicate submissions.

If you choose not to accept the award, or if you do not agree with the terms/conditions of the award and would like to discuss options, then please contact your OJP program manager, Carrie Booth at (202) 305-7426.

If the Authorized Grantee Official named on the Award Document is no longer authorized to accept this award on behalf of your organization, do not alter the pre-printed name in box 18. Please go to the Grant Adjustment Notice (GAN) link and request an adjustment to the name of the authorized official. This GAN must be approved before you can accept the award. Once the GAN to change the name of the authorizing official has been approved, you should:

1. Print the approved GAN;
2. Print the original award document;
3. Have the new approving official sign the acceptance next to the former official's name and initial the special conditions page(s);
4. Email or fax the signed acceptance, special conditions, and the approved GAN to the Control Desk as noted above in #4;

If you have programmatic questions, contact Carrie Booth at (202) 305-7426. For financial questions, contact OCFO Customer Service at 1-800-458-0786. For questions about retrieving or printing these documents, designating a Financial Point of Contact, or creating a Grant Adjustment, please contact the GMS Help Desk at 1-888-549-9901 option #3 or email them at gms.helpdesk@usdoj.gov.

Web link to GMS: https://grants.ojp.usdoj.gov

Please follow these links to access important OJP instructions:

Creating a financial point of contact instructions:
http://www.ojp.usdoj.gov/funding/pdfs/fsr_user_manual.pdf

Post Award Instructions:
http://www.ojp.usdoj.gov/funding/pdfs/post_award_instructions.pdf

OJP Financial Guide: http://www.ojp.usdoj.gov/financialguide/

Please do not reply to this message. You can contact your program manager Carrie Booth at (202) 305-7426.

DATE: September 13, 2016

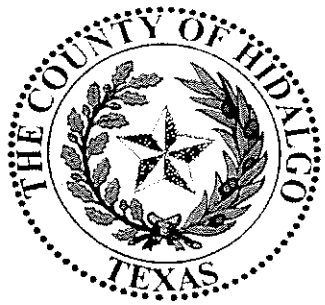
DEPARTMENT HEAD: Sergio Cruz

DEPARTMENT NAME: Dept. of Budget & Mgmt. for Auxiliary Court - FY 16 Justice Assitance Grant (JAG) - (1282)

ACCOUNT NUMBER: 6-1282-412-00-115-047-9-XXX

2016
Appropriation

AI#-56087



Contact Person: Rolando Garcia **Ph#** (956) 292-7025 Ext. 5412

SUBJECT: **Budget Amendments** (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

Honorable Commissioners' Court of Hidalgo County:

I would like to request the following Budget Amendments (increase (decrease)) in accordance with Local Government Code, Chapter 111, § 111.070, Item C (2).

INCREASE ACCOUNT NUMBER(S)	ACCOUNT (OBJECT) NAME	AMOUNT
6-1282-412-00-115-047-9-113	JAG-Salaries - F/T Employees	34,022.00
6-1282-412-00-115-047-9-115	JAG-Longevity Pay	553.00
6-1282-412-00-115-047-9-220	JAG-FICA	2,350.00
6-1282-412-00-115-047-9-230	JAG-Retirement	3,457.00
6-1282-412-00-115-047-9-250	JAG-Unemployment Compensation	184.00
6-1282-412-00-115-047-9-260	JAG-Worker's Compensation	65.00
	Total Appropriation	
6-1282-331-11-115-047-9-000	Justice Assistance Grant - Revenue	40,631.00
	Total Revenue	
	TOTAL BUDGET INCREASE (DECREASE)	$ 40,631.00

REASON: To appropriate the FY 2016 Edward Byrne Justice Assistance Grant (JAG) Program Award. Health and Life Insurance expenditures will be reclassified to general fund.

DEPARTMENT HEAD SIGNATURE

APPROVED COMMISSIONERS' COURT

/ /
DATE

ATTEST COUNTY CLERK

AI-56279 **Purchasing Department** **12. A. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Letty Saenz, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

a. Acceptance and approval of a Professional Services Agreement #C-16-257-09-13 with Jimenez Engineering Solutions, LLC d/b/a INTERNATIONAL CONSULTING ENGINEERS for the purposes of "professional engineering services" for: [FEMA Projects] - located within Hidalgo County Precinct No. 1, subject to compliance with HB1295 [if and when applicable]
- Site 1 Mile 1-1/2 West between Mile 11 North and Mile 12 North Edcouch, TX
- Site 3 Jesus Flores Road Edcouch, TX
- Site 4 Englemen Road between Valdez and FM 2812 Edcouch, TX
- Site 5 Las Cumbres Drive between FM 493 and address 12880 Edcouch, TX
- Site 6 Mile 20 North between FM 493 and Mile 7 West Edcouch, TX

b. Acceptance and approval of Work Authorization No. 1 (with an estimated cost of $ 48,311.66) as submitted by project engineer, Jimenez Engineering Solutions, LLC d/b/a INTERNATIONAL CONSULTING ENGINEERS for: (FEMA) Projects, in connection to agreement # C-16-257-09-13.
- Site 1 Mile 1-1/2 West between Mile 11 North and Mile 12 North Edcouch, TX
- Site 3 Jesus Flores Road Edcouch, TX
- Site 4 Englemen Road between Valdez and FM 2812 Edcouch, TX
- Site 5 Las Cumbres Drive between FM 493 and address 12880 Edcouch, TX
- Site 6 Mile 20 North between FM 493 and Mile 7 West Edcouch, TX

BACKGROUND

CC 05/17/16 AI-54597 Approval to Accept PW
CC 06/07/16 AI-54792
FEMA Project Number PA-06-TX-7556-PW 01362
Contract# C-16-257-09-13-Jimenez Engineering Solutions, LLC d/b/a International Consulting Engineers

---

Fiscal Impact

FISCAL YEAR: 2015 **ACCT. #:** 6-1280-431-00-121-800-5-XXX

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** Y

BUDGETARY IMPACT:

County Fiscal Year 2016
Grant fiscal Year 2015

FISCAL YEAR: 2015 **ACCT. #:** 6-1280-431-00-121-802-5-XXX
FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** Y

BUDGETARY IMPACT:

FISCAL YEAR: 2015 **ACCT. #:** 6-1280-431-00-121-803-5-XXX
FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** Y

BUDGETARY IMPACT:

FISCAL YEAR: 2015 **ACCT. #:** 6-1280-431-00-121-805-5-XXX
FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** Y

BUDGETARY IMPACT:

FISCAL YEAR: 2015 **ACCT. #:** 6-1280-431-00-121-806-5-XXX
FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** Y

BUDGETARY IMPACT:

Attachments

legals approval-ICE-Pct 1
Sam Reg.
backup
WA
agreement

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 04:15 PM
Ivan Cantu	Ivan Cantu	09/08/2016 04:44 PM
Purchasing Department	Letty Saenz	09/08/2016 04:52 PM
Budget & Management	Veronica Ortiz	09/08/2016 04:55 PM
Ivan Cantu	Veronica Ortiz	09/09/2016 01:30 PM
Budget & Management	Veronica Ortiz	09/09/2016 01:31 PM
Ivan Cantu	Veronica Ortiz	09/09/2016 04:33 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Letty Saenz		Started On: 09/08/2016 11:37 AM
Final Approval Date: 09/09/2016		

Zimbra **leticia.saenz@co.hidalgo.tx.us**

RE: Review & Approve as to form-Prof Eng Agreement ICE (FEMA) project-Pct 1

From : Steve Crain <scrain@atlashall.com> Thu, Sep 08, 2016 12:38 PM

Subject : RE: Review & Approve as to form-Prof Eng Agreement ICE (FEMA) project-Pct 1 1 attachment

To : 'Leticia H. Saenz' <leticia.saenz@co.hidalgo.tx.us>

The contract is OK.

From: Leticia H. Saenz [mailto:leticia.saenz@co.hidalgo.tx.us]
Sent: Thursday, September 08, 2016 12:07 PM
To: Steve Crain <scrain@atlashall.com>
Cc: Marynel Trevino <mntrevino@atlashall.com>; darlene bentancourt <darlene.bentancourt@co.hidalgo.tx.us>; Raul Lozano <raul.lozano@co.hidalgo.tx.us>; Katia Garcia <katia.garcia@co.hidalgo.tx.us>
Subject: Review & Approve as to form-Prof Eng Agreement ICE (FEMA) project-Pct 1

Good afternoon, Mr. Crain-
Please review and approve as to form agreement **C-16-287-09-13** (attached hereto) with **Jimenez Engineering Solutions** d/b/a **International Consulting Engineers** for the purposes of **(FEMA) projects within Pct 1.**

*Note: will be placing on the next CC agenda for final approval.

Please advise.

Respectfully,

Leticia H. Saenz, CPPB/Contracts Manager
Hidalgo County Purchasing Department
2812 South Business Highway 281
Edinburg, Texas 78539
P(956) 318-2626 **F**(956) 318-2629
Email: leticia.saenz@co.hidalgo.tx.us

SAM Search Results
List of records matching your search for :
Record Status: Active
DUNS Number: 080095075
Functional Area: Entity Management, Performance Information

ENTITY Jimenez Engineering Solutions, LLC Status:Active

DUNS: 080095075 +4: CAGE Code: 7J4T7 DoDAAC:

Expiration Date: Dec 21, 2016 Has Active Exclusion?: No Delinquent Federal Debt?: No

Address: 1722 N Closner Blvd Ste B
City: Edinburg State/Province: TEXAS
ZIP Code: 78541-7122 Country: UNITED STATES

SAM Search Results
List of records matching your search for :
Record Status: Active
DUNS Number: 080095075
Functional Area: Entity Management, Performance Information

ENTITY Jimenez Engineering Solutions, LLC Status:Active

DUNS: 080095075 +4: CAGE Code: 7J4T7 DoDAAC:

Expiration Date: Dec 21, 2016 Has Active Exclusion?: No Delinquent Federal Debt?: No

Address: 1722 N Closner Blvd Ste B
City: Edinburg State/Province: TEXAS
ZIP Code: 78541-7122 Country: UNITED STATES

EXHIBIT E
-WORK AUTHORIZATION

HIDALGO COUNTY
Professional Engineering Services
Agreement# C-16-257-09-13

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **Jimenez Engineering Solutions dba International Consulting Engineers (ICE)** professional engineers of **Edinburg** Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the "engineering services" to provide:
Provide Plans. Specifications and Estimated Cost (PS&E) for various roads as identified herein for (FEMA) projects located within Precinct No. 1 as follows:

-**Site 1 Mile 1-1/2 West (between Mile 11 North and Mile 12 North, Edcouch, TX)**
-Site 3 Jesus Flores Road, Edcouch, TX
-Site 4 Englemen Road (between Valdez and FM 2812, Edcouch, TX)
-Site 5 Las Cumbres Drive (between FM 493 and address 12880, Edcouch, TX)
-Site 6 Mile 20 North (between FM 493 and Mile 7 West, Edcouch, TX)

The scope of services to be provided by the **Owner** is identified in **EXHIBIT "A" – Scope of Services to be provided by the Owner** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **EXHIBIT "B" – Scope of Services to be provided by the Engineer** attached hereto.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is **$ 48,311.66** .This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D".**

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/Section **7** of the Agreement.

PART 4. FUNDING

This Work Authorization No. 1 shall be funded through funding source:
Account No. _-_ _ _ _-_ _ _-_ _-_ _ _-_ _ _-_-_ _ _
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE
This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate **upon completion of scopes of the work authorization**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS
This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION
Acknowledgement and Confirmation by **Hidalgo County Precinct No.1,** as to content and detail of this **Work Authorization No. 1 .**

HIDALGO COUNTY
COMMISSIONER PRECINCT No. 1:

By: _____
A.C. Cuellar, Commissioner

PART 8. ACCEPTANCE AND APPROVAL
This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on **September 13, 2016** as indicated below and effective as of **13th** day of **September, 2016**.

THE ENGINEER:
JIMENEZ ENGINEERING SOLUTIONS
d/b/a **INTERNATIONAL CONSULTING ENGINEERS**

By:_____
Luis J. Nava, P.E.

THE OWNER:
HIDALGO COUNTY

By:_____
Ramon Garcia, County Judge

ATTEST:

By: _____
Arturo Guajardo Jr., County Clerk

LIST OF EXHIBITS
Location Map
Exhibit A – Services to be provided by Owner
Exhibit B – Services to be provided by Engineer
Exhibit C – Work Schedule
Exhibit D-1 – Estimated Man-hour Breakdown

EXHIBIT A
-SCOPE OF SERVICES TO BE PROVIDED BY THE OWNER

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

General:

The Owner will provide to the Engineer the following:

1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.
2) Payment for work performed by the Engineer and accepted by the Owner in accordance with Article 3 of this Agreement.
3) Assistance to the Engineer, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Engineer cannot easily obtain.
4) Provide any available relevant data the Owner may have on file concerning the projects.
5) Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed upon work schedule prepared in accordance with Exhibit "A" attached to this Agreement.
6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.

EXHIBIT "B"

Generalized Services to be provided by the Engineer

A. BASIC ENGINEERING SERVICES

ROADWAY DESIGN CONTROLS

1) Develop Typical Sections- No pavement design will be completed as part of the scope of work. Pavement section will be based on directive from Hidalgo County Pct. No. 1
2) Prepare plan and profile sheets as required for the reconstruction.
3) Develop plan and profiles for inclusion in sheets.
4) Detuning roadway quantities and prepare quantity summary sheet.

MISCELLANEOUS (ROADWAY)

1) Develop Miscellaneous Roadway Details.
2) Prepare Title Sheet and Index sheets.
3) Calculate project quantities and prepare quantity summary sheet.
4) Prepare general notes.
5) Prepare list of Standard Drawing to be included in the plans.
6) Upon completion of the review of the final plans by Hidalgo County Precinct. No. 1, the ENGINEER shall assemble and furnish signed original (11" x 17") drawings which shall include all applicable standards. The Engineer may sign/seal plans manually or include an electronic signature/seal.
7) Coordinate with Pct. 1 and other agencies as necessary.

SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION

1) Signing and Pavement Markings are to be shown on roadway P&P sheets as necessary.

CONSTRUCTION SUPPORT

1) Prepare Bid Documents
2) Attend and Coordinate Pre-bid Conference
3) Evaluate Bids
4) Make Award Recommendation
5) Assist County with preparation of Contract Documents
6) Attend Pre-Construction Conference upon request by County
7) Respond to Request for Information (RFI) from Contractor
8) Review Pay Requests
9) Preparation of Change Orders
10) Final Site Visit
11) Record Drawings

B. FIELD DESIGN SURVEY SERVICES

FIELD SURVEYING

1) Topographic survey of entire project length including:
   a) Topography of existing roadway and ditch within existing apparent ROW.
   b) Topography shall include any existing drainage crossings.
   c) Include flow lines, size and direction of drainage channels/structures
   d) Include utilities
   e) Perform one-call (Dig Tess) and identify and locate utilities (within Limits of R.O.W) as flagged/marked by utility companies
   f) Include inverts on sanitary sewer, measure downs to top of keys on water and gas mains
   g) Establish x,y, and z coordinates of power poles, manholes and valves of various utilities, flow lines of existing sanitary sewer and storm sewer lines, and subsequent utility ties of facilities exposed by others. Surveyor to survey nearest manhole/valve invert outside project limits.
   h) Establish 2 benchmarks for project control.

C. ADDITIONAL SERVICES NOT INCLUDED AS PART OF THIS PROJECT

GEOTECHNICAL SERVICES

1) Pavement section design or testing prior to PS&E development
   a) Material testing during construction

EXHIBIT C - WORK SCHEDULE

Hidalgo CountyPrecinct No.1Mile 1.5 West, Jesus Flores Road,Englemen Road, Las Cumbres Drive and Mile 20 North

Engineering Schedule Summary	Duration Days
Survey	7
100% Design & Submittal	24
Specifications	7
Advertise/Pre-Bid/Bid Opening	21
Bid Tabulation/Award Contract	14
Contract Prep/Pre-Construction	28
Construction	60
Closeout Completion	15

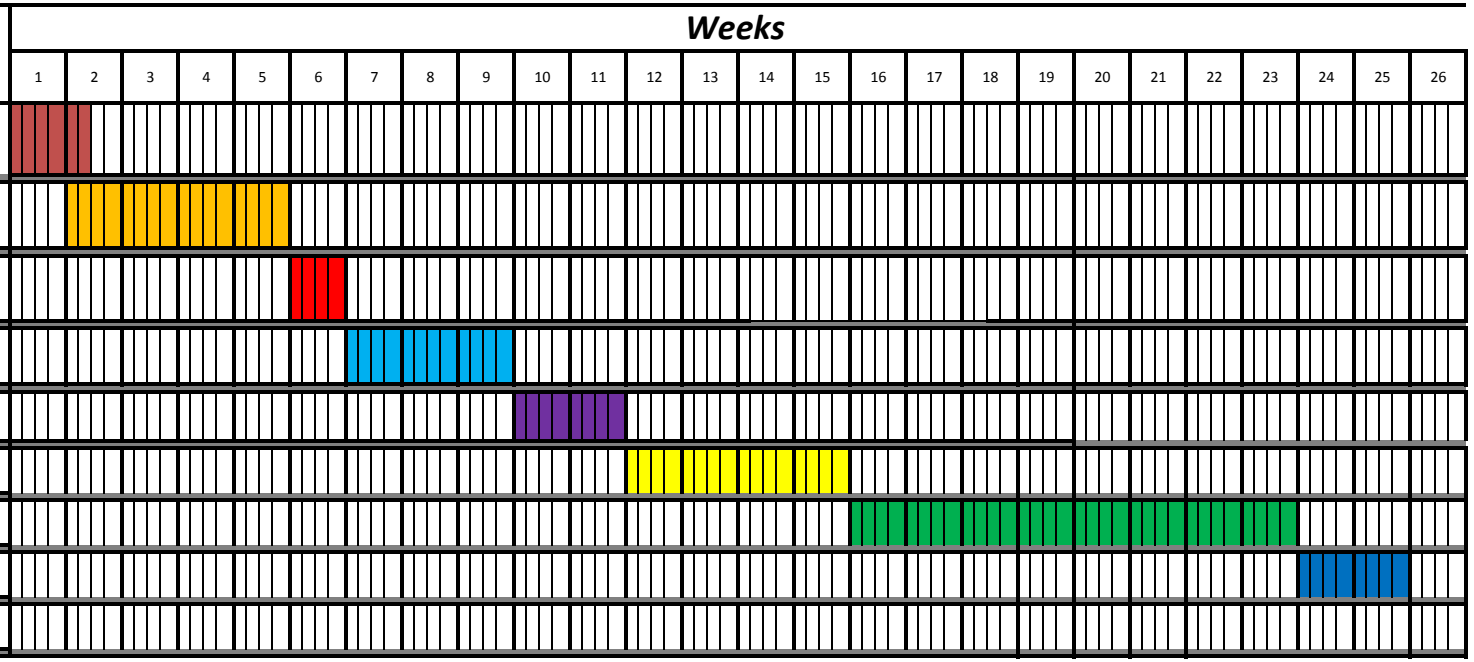


EXHIBIT D-1 - MAN-HOUR BREAKDOWN

HIDALGO COUNTY

PRECINCT No.1

MILE 1.5 WEST, JESUS FLORES ROAD, ENGELMEN ROAD, CUMBRES DRIVE MILE 20 NORTH STREET/ROAD IMPROVEMENTS

COMMON ITEMS

1.1	Traffic control sign and seal by PE	Ls	1	$ 2,500.00	$ 2,500.00
1.2	Inst. Amd Maintenance barricades, signs traffic handling	LS	1	$ 4,000.00	$ 4,000.00
				BASE TOTAL	**$ 6,500.00**
MILE 1.5 WEST					
1	Excavation (Pavement and 4" Caliche)	CY	2607	$ 3.00	$ 7,821.00
2	6" Subgrade preparation with 1.5% Lime by weight	SY	16426	$ 3.00	$ 49,278.00
3	Lime	TNS	45	$ 130.00	$ 5,850.00
4	6" New Caliche Flexible Base (Compacted in place)	SY	16426	$ 4.80	$ 78,844.80
5	Prime Coat (MC-30)	Gal	2933	$ 6.00	$ 17,598.00
6	2" Asphalt Ty "D"	TNS	1605	$ 95.00	$ 152,475.00
7	Regrade Roadside Ditch	LF	10260	$ 3.00	$ 30,780.00
				BASE TOTAL	$ 342,646.80
JESUS FLORES RD					
1	Excavation (Pavement and 4" Caliche)	CY	296	$ 3.00	$ 888.00
2	6" Subgrade preparation with 1.5% Lime by weight	SY	1867	$ 3.00	$ 5,601.00
3	Lime	TNS	5	$ 130.00	$ 650.00
4	6" New Caliche Flexible Base (Compacted in place)	SY	1867	$ 4.80	$ 8,961.60
5	Prime Coat (MC-30)	Gal	333	$ 6.00	$ 1,998.00
6	2" Asphalt Ty "D"	TNS	182.4	$ 95.00	$ 17,328.00
7	Regrade Roadside Ditch	LF	1200	$ 3.00	$ 3,600.00
				TOTAL	$ 39,026.60
ENGELMEN ROAD					
1	Excavation	CY	52	$ 3.00	$ 156.00
2	6" New Caliche Flexible Base (Compacted in place)	SY	7480	$ 4.80	$ 35,904.00
3	Regrade Roadside Ditch	LF	5280	$ 3.00	$ 15,840.00
				TOTAL	$ 51,900.00

LAS CUMBRES DRIVE

1	Excavation (Pavement and 4" Caliche)	CY	426	$ 3.00	$ 1,278.00
2	6" Subgrade preparation with 1.5% Lime by weight	SY	2667	$ 3.00	$ 8,001.00
3	Lime	TNS	7.33	$ 130.00	$ 952.90
4	6" New Caliche Flexible Base (Compacted in place)	SY	2667	$ 4.80	$ 12,801.60
5	Prime Coat (MC-30)	Gal	483	$ 6.00	$ 2,898.00
6	2" Asphalt Ty "D"	TNS	266	$ 95.00	$ 25,270.00
7	Regrade Roadside Ditch	LF	1500	$ 3.00	$ 4,500.00
				TOTAL	$ 55,701.50

MILE 20 N

1	Excavation	CY	52	$ 3.00	$ 156.00
2	6" New Caliche Flexible Base (Compacted in place)	SY	10472	$ 4.80	$ 50,265.60
3	Regrade Roadside Ditch	LF	7392	$ 3.00	$ 22,176.00
				TOTAL	$ 72,597.60
	COMMON ITEMS				**$ 6,500.00**
	MILE 1.5 WEST				**$ 342,646.80**
	JESUS FLORES ROAD				**$ 39,026.60**
	ENGELMEN ROAD				**$ 51,900.00**
	LAS CUMBRES DRIVE				**$ 55,701.50**
	MILE 20 N				**$ 72,597.60**
				GRAND TOTAL	**$ 568,372.50**
				8.5% Eng Fees	**$ 48,311.66**

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THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

AGREEMENT FOR PROFESSIONAL SERVICES
C-16-257-09-13

THIS AGREEMENT is made, by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the **"Owner"**, and **Jimenez Engineering Solutions, LLC** d/b/a **International Consulting Engineers**, Professional Engineers of Edinburg, Texas, hereinafter called the **"Engineer".**

WITNESSETH:

WHEREAS, the **Owner** desires to contract with the **Engineer** to provide professional engineering services required for the projects specific **Road and Drainage Improvements to various roads as identified herein for: (FEMA) Projects:**

-**Site 1 Mile 1-1/2 West (between Mile 11 North and Mile 12 North, Edcouch, TX)**
-Site 3 Jesus Flores Road, Edcouch, TX
-Site 4 Englemen Road (between Valdez and FM 2812, Edcouch, TX)
-Site 5 Las Cumbres Drive (between FM 493 and address 12880, Edcouch, TX)
-Site 6 Mile 20 North (between FM 493 and Mile 7 West, Edcouch, TX)

for **Hidalgo County Precinct No. 1** hereinafter referred to as the **"Project".**

WHEREAS, pursuant to Texas Government Code Chapter 2254.002, (the "Texas Professional Services Procurement Act"), the **Owner** requested proposals from a professional engineer to assist the **Owner** by providing the Services;

WHEREAS, from which "Professional Engineer" has been selected from the "Pool" of pre-qualified Engineering from response to the Request for Qualifications (RFQ), and

WHEREAS, **Owner** has selected the **Engineer** to provide the Services within Hidalgo County Precinct No. 1, in accordance to Exhibit "A-1" Request for Qualifications (RFQ) Procurement Packet.

NOW, THEREFORE, the **Owner** and the **Engineer** in consideration of the mutual covenants and agreements herein contained do mutually agree as follows:

ARTICLE 1. Employment of Engineer. The **Owner** agrees to employ the **Engineer** and the **Engineer** agrees to perform professional engineering services in connection with the **Project** as stated in the articles to follow and for having rendered such services, the owner agrees to pay **the Engineer** compensation as stated in the articles to follow.

ARTICLE 2. Character and Extent of Services. This Agreement will provide for the development of the **Project** with the following:

2.1 Scope of Work. The **Owner** will furnish items and provide those services for the development of the **Project** and fulfillment of this Agreement, as identified in **EXHIBIT "A"** ***Services to be provided by the Owner***, attached hereto and made a part of this Agreement.

2.2 Engineer's Services. For this Agreement, the professional services to be provided by the **Engineer**, as more particularly identified in **EXHIBIT "B"**, attached hereto and made part of this Agreement.

2.3 Schedule of Work. The **Engineer** shall prepare a schedule of work (hereinafter referred to as "**Work Schedule**") in accordance with the terms identified in **EXHIBIT "C"** - ***Work Schedule***, attached hereto and made a part of this Agreement.

ARTICLE 3. Period of Service. Upon execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof.

3.1 Termination Date. This Agreement is for a period of **one (1) year,** commencing, **September 13, 2016,** expiring, **September 12, 2017** or *(upon completion of the scope of work/projects)* (hereinafter referred to as the "**Termination Date**"), unless extended by written supplemental agreement, as provided in Article 8 hereof, duly executed by

Engineer and the **Owner** prior to the **Termination Date**, or otherwise terminated as provided in Article 3.4 herein and below. The **Owner** assumes no liability or obligation for payment to the **Engineer** for work performed or costs incurred by the **Engineer** prior to the date authorized by the **Owner** for the **Enginee**r to begin work, during periods when work is suspended, or subsequent to the **Termination Date.**

3.2 Extension of the Termination Date. The **Engineer** shall notify the **Owner** in writing as soon as possible if it is determined, or reasonably anticipated, that the work under this Agreement cannot be completed before the **Termination Date,** and the **Owner** may , at the **Owner's** sole discretion, extend the **Termination Date** by written supplemental agreement as provided in Article 8 hereof. The **Engineer** shall allow adequate time for review and approval by the **Owner** of the written notice and request by the **Engineer** to extend the **Termination Date.**

3.3 Suspension of Work. Should the **Owner** desire to suspend the work under this Agreement, but not terminate this Agreement, the **Owner** shall provide thirty (30) calendar days verbal notification to the **Engineer**, followed by written confirmation from the **Owner** to the **Engineer** to that effect. The thirty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer**. The work under this Agreement may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the **Owner** to the **Engineer**. The sixty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer.**

If the **Owner** suspends the work, the **Termination Date** as identified above is not affected, and this Agreement will terminate on the date specified, unless extended by written

supplemental agreement, as provided in Article 8 hereof, duly executed by the **Engineer** and the **Owner** prior to the **Termination Date.**

3.4 Termination of Agreement. This Agreement may be terminated before the stated **Termination Date** identified in Article 3.1 herein by any of the following conditions:

(1) **Commitment of Current Revenues**. In the event that, during any term hereof, the **Owner** does not appropriate sufficient funds to meet to the obligations of this Agreement, the **Owner** may terminate this Agreement upon thirty (30) days written notice to the **Engineer.** The **Owner** agrees, however, to use reasonable efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of the **Owner** pursuant to the provisions of Tex. Loc. Govt. Code Ann. §271.903 (Vernon Supp. 1995).

(2) By mutual agreement and consent, in writing, of both the **Engineer** and the **Owner**.

(3) By the **Owner,** upon failure of the **Engineer** to fulfill the **Engineer's** obligations set forth herein in a satisfactory manner as determined by the **Owner** and in sole opinion of the **Owner**, after the **Owner** provides written notice to the **Engineer** of such failure and the **Engineer** has not corrected such failure within (30) days of such written notice by the **Owner.**

(4) By the **Engineer**, upon failure of the **Owner** to fulfill the **Owner's** obligations set forth herein, after the **Engineer** provides written notice to the **Owner** of such failure and the **Owner** has not corrected such failure within thirty (30) days of such written notice by the **Engineer.**

(5) By the **Owner** without cause upon thirty (30) days written notice to the **Engineer.**

(6) By satisfactory completion of all services and obligations described herein.

Should the **Owner** terminate this Agreement as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the **Engineer** notwithstanding anything herein to the contrary. In determining the value of the work performed by the **Engineer** prior to termination, the **Owner** shall be the sole judge of the value of such work performed. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the **Owner** terminate this Agreement under (5) of the paragraph above, the amount charged during the thirty (30) day notice period shall not exceed the amount charged during the preceding ninety (90) days.

If the termination of this Agreement is due to the failure of the **Engineer** to fulfill the **Engineer's** obligations under this Agreement, the **Owner** may take over the Project and prosecute the work to completion. In such case, the **Engineer** shall be liable to the Owner for any additional cost occasioned by the Owner.

If the **Engineer** defaults in the performance of this Agreement or if the **Owner** terminates this Agreement for fault on the part of the **Engineer**, the **Owner** will give consideration to payment of an amount in settlement to include: the actual costs incurred by the **Engineer** in performing the work to the date of default, the amount of work required which was satisfactorily completed to date of default, the value of the work which is usable to the **Owner**, the cost to the **Owner** of employing another consultant and/or firm to complete the work required and the time required to do so, and other factors which affect the value to the **Owner** of the work performed at the time of default. This Agreement shall not be considered as specifying the exclusive remedy for any default by the **Engineer,** but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

The termination of the Agreement and payment of an amount is settlement as prescribed above shall extinguish all rights, duties, and obligations of the **Owner** and the **Engineer** under

this Agreement, except the obligations set forth in Articles 11.2, 12, 13, 15, 16, 17, 18.3, 19, 22 and 26 hereto.

ARTICLE 4. Progress and Coordination. The **Engineer** shall, from time to time during the progress of the work, confer with the **Owner**. The **Engineer** shall prepare and present such information as may be pertinent and necessary, or as may be requested by the **Owner**, in order to evaluate features of the **Engineer's** services and work.

At the request of the **Owner** or the **Engineer**, conferences shall be provided at the **Engineer's** office, the office of the **Owner,** or at other locations designated by the **Owner.** These conferences shall also include evaluation of the **Engineer's** services and work when requested by the **Owner.**

All applicable study reports shall be submitted in preliminary form for approval by the **Owner** before the final report is issued. The **Owner's** comments regarding the **Engineer's** preliminary report will be addressed by the **Engineer** in the final report.

If funds by other agencies or entities are to be used for the development of the project under this Agreement, the **Engineer's** services and work will be subject to periodic review and approval by other agencies or entities, including those of the city, county, state and/or federal agencies.

Should it be determined that the progress in the production of the **Engineer's** services and work does not satisfy the requirements of the approved **Work Schedule** as provided by **Exhibit "C",** attached hereto, the **Owner** shall review the approved **Work Schedule** with the **Engineer** to determine the corrective action needed by either the **Owner** or the **Engineer.**

The **Engineer** shall promptly advise the **Owner** in writing of events which have a significant impact upon the progress of the **Engineer's** services and work and the approved **Work Schedule**, including:

(1) problems, delays, adverse conditions which will materially affect the ability to attain contract objectives, prevent the meeting of time schedules and goals, or preclude the timely completion and submittal of **Project** deliverables by the **Engineer** within established time periods; this disclosure will be accompanied by a statement by the **Engineer** of recommended or immediate action taken, or contemplated, and any **Owner** or other agency or entity assistance needed to resolve the situation: and

(2) favorable developments or events which enable meeting the **Work Schedule** goals sooner than anticipated.

ARTICLE 5. Compensation and Fees. For and in consideration of the services to be rendered by the Engineer, the Owner shall compensate the Engineer as follows:

5.1 ***Basic Services***. For and in consideration of the ***Services*** to be rendered by the **Engineer**, as identified in Article 2 and more particularly identified in **EXHIBIT "B"**, attached hereto, the maximum amount payable by the **Owner** to the **Engineer** for ***Services***, subject to adjustment in accordance with Article 6.1 herein, will be provided in each work authorization issued. An outline and breakdown of the **Services Fee** is more particularly identified in **EXHIBIT "D1"**-***Fee Schedule***, attached hereto and made a part of this Agreement. Payments to the **Engineer** for ***Services*** shall be made by the **Owner**, upon presentation by the **Engineer** of the monthly **Request for Payment**, in accordance with the terms and provisions of Article 6 herein.

5.2 ***Special Services***. Those services that may be required to provided by the **Engineer** as ***Special Services*** are set forth below and more particularly described in **EXHIBIT "B"**, attached hereto. For and in consideration of these ***Special Services*** rendered as required by the **Engineer,** the **Owner** shall pay the **Engineer** a negotiated lump sum fee (hereafter referred to as "**Special Services Fee**") at the hourly labor rates and non-labor rates (hereinafter

referred to as "**Contract Rates**") specified in **EXHIBIT "D**" - ***Contract Rates***, attached hereto and made a part of this Agreement, and as follows:

1. **RESIDENT OR SITE ENGINEER, INSPECTOR** Actual performance of services of project site engineer, resident engineer and/or inspector, if required by **Owner**.

2. **DOCUMENT COPIES** Actual performance and/or providing of additional copies (over 10) of report; additional copies (over 10) of plans (contract drawings), specifications and estimates (PS&E); additional copies (over 10) of bidding documents: additional copies (over 10) of as-built drawings.

3. **EXTRA TRAVEL** Extra travel required of **Engineer** and authorized by **Owner** to points outside of Hidalgo County.

4. **EXPERT WITNESS** Assistance to the **Owner** as expert witness in any litigation with third parties, arising from the development or construction of the **Project**.

5. **MISCELLANEOUS**. Investigations involving detailed consideration of operation, maintenance and overhead expenses and (unless otherwise agreed) the preparation of rate schedules, earning and expense statements; preparation of feasibility studies; environmental document preparation; appraisals, valuations, and material audits; or inventories required for certification of force account construction performed by the **Owner**; preparation of change orders for extra work done by the **Contractor.**

ARTICLE 6. Method of Payment.

6.1 Requests for Payment. Payments to the **Enginee**r for services rendered will be made while work is in progress as executed through a lump sum fee assigned to each work authorization (hereinafter referred to as **"Work Authorization**") in accordance with **Article 7** herein. For each **Work Authorization,** the **Engineer** shall prepare and submit to the **Owner** monthly progress reports in sufficient detail to support the progress of the work and in support of a request for payment (hereinafter referred to as "**Request for Payment**"). The progress report shall indicate the percent completion of the work accomplished by the **Engineer** during the billing period and to the date of the **Request for Payment**. On or before noon of the first Monday of each month during the performance of the services, the **Engineer** shall submit to the **Owner** for approval a **Request for Payment**. Payment of the lump sum fee for each **Work**

Authorization identified in the **Request for Payment** will be in proportion to the percent completion of the work tasks identified in such **Work Authorizations** together with a detailed breakdown of the amount and the sum of all prior payments. The **Owner** shall review each such **Request for Payment** and may make such exceptions as the **Owner** reasonably deems necessary or appropriate under the circumstances then existing. About ten (10) working days after the Commissioners Court of the **Owner** meets approving such payment, the **Owner** shall make payment to the **Engineer** in the amount approved as aforesaid subject to Article 6.4 herein and below.

If the **Project**, or any portion(s) thereof, are deleted or otherwise not constructed, compensation to the **Engineer** by the **Owner** for the **Project** or such portions of the project shall be only the amounts paid the **Engineer** for actual work performed in accordance with the **Work Authorization**(s) approved by the **Owner.**

6.2 Final Payment. After final completion of the work and acceptance thereof by the **Owner,** the **Engineer** shall submit a final request for payment (**"Final Request for Payment"**) which shall set forth all amounts due and remaining unpaid to the **Engineer** and upon approval thereof by the **Owner,** the **Owner** shall pay to the **Engineer** the amount due (**"Final Payment**") under such **Final Request for Payment** in accordance with the provisions of Article 6.1 hereof. The **Final Payment** shall not be made until the **Engineer** delivers to the **Owner** an affidavit that so far as the **Engineer** has knowledge or information any and all amounts due for materials and services over which the **Engineer** has control have been paid.

6.3 Qualification on Obligations to Pay. Any provision hereof to the contrary notwithstanding, the **Owner** shall not be obligated to make any payment (whether a payment under Article 6.1 hereof or **Final Payment**) to the **Engineer** hereunder if any one or more of the following conditions precedent exist:

The **Engineer** is in default of any of its obligations hereunder or otherwise is in default under this Agreement or under any contract documents related to this Agreement;

(1) Any part of such payment is attributable to the **Engineer's** services which are not performed in accordance with this Agreement; provided, however, such payment shall be made as to the part thereof attributable to the **Engineer's** services which were performed in accordance with this Agreement.

(2) The **Engineer** has failed to make payments promptly to consultants or other third parties used in connection with the **Project** for which the **Owner** has made payment to the **Engineer;**

(3) If the **Owner,** in good faith judgement, determines that the portion of the compensation then remaining unpaid will not be sufficient to complete the **Engineer's** services in accordance with this Agreement, no additional payments will be due the **Engineer** hereunder unless and until the **Engineer,** at its sole cost, performs a sufficient portion of the **Engineer's** services so that such portion of the compensation then remaining unpaid is determined by the **Owner** to be sufficient to so complete the **Engineer's** services.

6.4 No partial payment made hereunder shall be or construed to be final acceptance or approval of that part of the **Engineer's** services to which such partial payment related or relieves the **Engineer** of any of its obligations hereunder with respect thereto.

6.5 The **Engineer** shall promptly pay all bills for labor and material performed and furnished by others in connection with the performance of the **Engineer's** services.

6.6 Waiver. The making of the **Final Payment** shall constitute a waiver of all claims by the **Owner** except those arising from (1) faulty or defective services of the **Engineer** appearing after completion of the **Project.** (2) failure of the **Engineer's** services to comply with the requirements of this Agreement or any contracts or Agreements related to the **Project**, or (3) terms of any special warranties required by this Agreement or provided at law or in equity. The acceptance of **Final Payment** shall constitute a waiver of all claims by the **Engineer** except those previously made in writing and identified by the **Engineer** as unsettled at the time of the Final Request for Payment.

ARTICLE 7. Work Authorization. After execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof, only as authorized by the **Owner** through an agreed **Work Authorization** document in the form identified in **EXHIBIT "E"**- ***Work Authorization Form***, attached hereto and made a part of this Agreement. The **Engineer** will identify, as approved by the **Owner,** the needed services for the **Project,** as required through the course of the development to the **Project.** The **Owner** shall authorize the **Engineer** to perform one or more of the agreed tasks identified in **EXHIBIT "B",** attached hereto, in the form of individual work authorizations. Upon authorization from the **Owner,** the **Engineer** will prepare a **Work Authorization** document, which will include a description of the work to be performed, including a description of the tasks and milestones, a work schedule, and an estimated cost proposal agreed upon by the **Owner** and the **Engineer**. The estimated cost proposal shall set forth in detail the computation of the cost of each work task, at the hourly rates established and identified in **EXHIBIT "D",** attached hereto. The **Work Authorizations** shall not waive the **Owner's** and the **Engineer's** responsibilities and obligations established in this Agreement.

The estimated cost proposal for each **Work Authorization**, developed by the **Engineer** and approved by the **Owner** shall be used by the **Owner** to appropriate a purchase order for the **Work Authorization.** Each executed **Work Authorization** shall become a part of this **Agreement**. Upon satisfactory completion of the **Work Authorization**, the **Engineer** shall submit the **Project's** deliverables as specified in the executed **Work Authorization** to the **Owner** for review and acceptance.

Work included in a **Work Authorization** shall not begin until the **Owner** and the **Engineer** have signed the **Work Authorization**. All work must be completed on or before the

completion date specified in the **Work Authorization**, unless extended by written agreement by the **Engineer** and the **Owner.** The **Engineer** shall promptly notify the **Owner** of any event that will affect completion of the **Work Authorization.** All **Work Authorizations** must be executed and completed by both the **Engineer** and the **Owner** within the period established for this Agreement as specified in Article 3 hereof.

The final acceptance by the **Owner** of each **Work Authorization** for the **Project** shall serve as evidence of completion, on the part of the **Engineer,** of all services under this Agreement insofar as they pertain to that portion of work on the **Project** identified in the applicable work authorization.

ARTICLE 8. Supplemental Agreements. The terms of this Agreement may be amended by supplemental agreement if the Owner determines that (1) there is a need to extend the **Termination Date** identified in Article 3.1 hereof, (2) there has been a significant change in the scope, complexity or character of the services to be performed by the **Engineer,** and/or (3) for any other reason agreeable to the **Owner** and the Engineer. All supplemental agreements will be developed in the form identified in **EXHIBIT "F"** - ***Supplemental Agreement Form***, attached hereto and made a part of this Agreement, and incorporated herein by reference as "**Supplemental Agreement".**

If determined appropriate by the **Owner,** additional compensation to the **Engineer** for (1), (2) and/or (3) above shall be paid as a negotiated lump sum fee at the **Contract Rates** specified in **EXHIBIT "D"**, attached hereto. The negotiated lump sum fee shall be incorporated into the **Supplemental Agreement.**

Any **Supplemental Agreement** must be executed by both the **Engineer** and the **Owner** prior to the **Termination Date** specified in Article 3 hereof.

It is distinctly understood and agreed that no claim by the **Engineer** for additional work, as identified in Article 9 hereof, or changes or revisions in work, as identified in Article 10 hereof, shall be made by the **Engineer** until full execution of the **Supplemental Agreement** and authorization to proceed is granted by the **Owner**. The **Owner** reserves the right to withhold payment to the **Engineer** pending verification of satisfactory work performed by the **Engineer.**

ARTICLE 9. Additional Work. If the **Engineer** is of the opinion that any work it has been directed to perform is beyond the scope of this Agreement and constitutes extra work, the **Engineer** shall promptly notify the **Owne**r in writing, In the event the **Owne**r finds that such work does constitute extra work, the **Owner** shall so advise the **Engineer** and a written supplemental agreement will be executed between the **Owner** and the **Engineer** as provided herein. The **Engineer** shall not perform any proposed additional work or incur any additional cost prior to the execution by both the **Engineer** and the **Owner** of a supplemental agreement. Additional compensation from the **Owner** to the **Engineer** shall be paid as a negotiated lump sum fee at the Contract Rates specified in **EXHIBIT "D"** attached hereto. The negotiated lump sum fee shall be incorporated into the supplemental agreement as specified in Article 8 hereof. The **Owner** shall not be liable or under any obligation to compensate the **Engineer** for work performed or costs incurred by the **Engineer** relating to additional work not directly associated with the performance of the work authorized in this Agreement or as amended through supplemental agreement.

ARTICLE 10. Changes or Revisions in Work. If the **Owner** finds it necessary to request changes to the work, and the changes are within the applications of sound engineering principles, the **Engineer** shall make such revisions if requested and directed by the **Owner.**

10.1 Preliminary Work. The **Engineer** will make, without expense to the **Owner,** such revisions of any preliminary reports or drawings as may be required to meet the needs of the **Owner** and the applications of sound engineering principles.

10.2 Previously Approved or Satisfactorily Completed Work. If the **Owner** funds it necessary to request the **Engineer** to make changes to work previously approved by the **Owner** or work satisfactorily completed for which the **Owner** approves or, after a definite plan has been approved by the **Owner**, if a decision is subsequently made by the **Owner**, which for proper execution involves extra services and expenses for changes in or additions to the drawings specifications or other documents, this will be considered as additional work, and compensation from the **Owner** to the Engineer will be in accordance with Article 9 hereof.

10.3 Project Delays. If the **Engineer** is required to perform additional work due to delays by the imposition of causes not within the **Engineer's** control, such as by the re-advertisement of bids or by the delinquency or insolvency of contractors, such work associated with these delays shall be considered additional work, and the **Engineer** shall be compensated by the **Owner** for such extra services and expense in accordance with Article 9 hereof.

10.4 Reduction of Project Cost. Notwithstanding any provision herein to the contrary, in the event it is necessary for the **Owner** to require changes in the final plan of the **Project** to enable it to the reduce the construction cost of the **Project** to an amount within the sum estimated by the **Engineer,** the **Engineer** will be required to make such revisions or changes. These changes will only be considered additional work by the **Engineer,** if the **Engineer** previously provided these same changes as options to the **Owner** at the stage of preliminary work or prior to the approval of the final plan for the Project, and the option or options were not selected or approved by the **Owner** to be incorporated into the final plan of the Project.

Payment for this additional work will then be made to the **Engineer** in accordance with Article 9 hereof. If **the Engineer** failed to provide these changes as an option or options to the **Owner** at the stage of preliminary work or prior to the approval of the final plan of the **Project**, these changes will not be considered additional work and no additional compensation will be made to the **Engineer.**

ARTICLE 11. Ownership and **Release of Documents**.

11.1 Ownership of Documents. Original drawings and specifications are the property of the **Engineer** however the **Project** is the property of the **Owner**, and the **Engineer** may not use the drawings and specifications thereof for any purpose not relating to the **Project** with the **Owner's** consent. The **Owner** shall be furnished with such reproductions of drawings and specifications as the **Owner** may reasonably require. Upon completion of the work or any earlier termination of this Agreement under Article 3.4 hereof, the **Engineer** will revise drawings to reflect changes made during construction and will promptly furnish the **Owner** with one complete set of reproducible record prints. Prints shall be furnished by the **Engineer,** as an additional service, at any other time requested by **Owner.** All such reproductions shall be the property of the **Owner** who may use them without the **Engineer's** permission for any proper purpose relating to the **Project,** including but not limited to additions to or completion of the **Project.** Any additions or revisions by the **Owner** to a drawing signed, sealed, and dated by a registered professional engineer, shall be made in accordance with the Texas Engineering practice Act and the Rules of the State Board of Registration for Professional Engineers.

All documents furnished to the **Engineer** by the **Owner** shall be delivered to the **Owner** upon completion or termination of this Agreement. The **Engineer,** at the **Engineer's** own expense, may retain copies of such documents or any other data under this Agreement.

11.2 Release of Documents or Information. Release of information to the public or others regarding the **Project** will be accordance with the Texas Public Information Act.

ARTICLE 12. Discounts, Rebates, Refunds. In connection with procurement services rendered by the **Engineer,** if procurement services are required of the **Engineer** hereunder, all discounts, rebates and refunds shall accrue to the **Owner**. For some purchases, the **Engineer** may deem that payment within the discount period is not safe; and/or inspection, guarantees, or other considerations may dictate delay. In such cases, the **Engineer** shall promptly notify the **Owner** so that a course of action may be mutually agreed upon by the **Owner** and the **Engineer.**

ARTICLE 13. Records, Accounting, Inspection. The **Engineer** shall keep full and detailed records and accounts in a manner approved by the **Owner.** The **Engineer** shall afford the **Owner's** authorized personnel and independent auditors, if any, full access to the work performed by the **Engineer** regarding the **Project** and to all of the **Engineer's** books, records, correspondence, instructions, drawings, receipts, vouchers and other documents relating to such work under this Agreement and the **Engineer** shall preserve all such records for three (3) years after final payment. The **Engineer** shall deliver to the **Owner** upon completion of such work, a statement of the cost of such work detailed according to the accounting procedure and requirements of the **Owner.**

ARTICLE 14. Subcontracting and Assignment.

The **Engineer** shall not assign, subcontract or transfer the **Engineer's** interest in this Agreement without the prior written consent of the **Owner.** The **Engineer** shall bind every subconsultant by written subcontract to observe all the terms of this Agreement to the extent that they may be applicable to each subconsultant. No subcontract relieves the **Engineer** of any responsibilities under this Agreement.

The **Engineer,** and the **Owner,** do hereby bind themselves, their successors, executors, administrators and assigns to each other party of this Agreement and to the successors, executors, administrators, and assigns of such other party in respect to all covenants of this contract.

ARTICLE 15. Patents. The **Engineer** shall indemnify and save the **Owner** harmless from all liability for alleged or actual infringement of any patent resulting from the use of apparatus or equipment furnished or designed by the **Engineer** or from the use of any process designed by the **Engineer** or effected by said apparatus or equipment, and the **Engineer** shall indemnify and save the **Owner** harmless from and against all costs, legal fees, expenses and liabilities incurred in or about any claim of or action for such infringement: provided, however, that the **Owner** shall promptly transmit to the **Engineer** all papers served on the **Owner** in any suit involving such claim of infringement, and provided further, that the **Owner** permits the **Engineer** to have entire charge and control of the defense of any such suit. If because of actual infringement the use of such apparatus, equipment, or process is enjoined, the **Engineer** shall refund the purchase price thereof in proportion to the length of service uncompleted, the life of such apparatus or equipment being assumed as five years. The **Engineer** hereby grants to the **Owner** a non-exclusive, royalty-free license under patents now or hereafter owned by the **Engineer** covering any machines, apparatus, processes, articles, or products included in the **Engineer's** work hereunder.

ARTICLE 16. Confidential Information, Inventions and Other Restrictions.

16.1 Confidential Information. The **Engineer** shall not use in any way, commercial or otherwise, except to the extent required by the proper performance of this Agreement; and shall hold in confidence and not disclose to any person, for any reason or at any time, any information relating to the secret processes, products, compositions, machinery, apparatus or trade secrets of the **Owner**, or any other confidential information given to the **Engineer** by any

of the **Owner's** commissioners, elected officials, employees, or representatives or acquired by the **Engineer** during the term of or as a result of this Agreement. Any information not generally available to the public shall be considered secret and confidential for the foregoing purposes; provided, however, that any technical information which was lawfully in the **Engineer's** possession prior to such disclosure to the **Engineer** by the **Owner** or which is or shall lawfully be published or become part of general knowledge from sources other than the **Engineer** or which otherwise shall lawfully become available to the **Engineer** from a source other than the **Owner**, shall not be subject to these provisions. All the foregoing stipulations shall apply to such information and work hereunder as well as to any information and ideas originated or developed by the **Engineer** in performing such work. Such information may, of course, be disclosed to the proper officials or employees of the **Owner** if necessary to perform the work hereunder. The **Engineer** shall, however, inform each of its employees who receive such information of these restrictions and the **Engineer** shall take all reasonable precautions and exert all reasonable efforts to assure conformance with such restrictions by all of its officers, employees, and agents, obtaining from them if necessary, agreements satisfactory to the **Owner,** effectuating the purposes of this Article.

16.2 Inventions. The **Engineer** shall communicate to the **Owner** at once, and require the **Engineer's** employees assigned to this **Project** to communicate to the **Owner** all inventions and improvements which any of the **Engineer's** employees, either alone or in conjunction with any of the **Owner's** employees may conceive, make or discover during the course of or as a result of work on this **Project** under this or any ensuing agreement with the **Owner** that relates to the processes, products, compositions, machinery or plants of the **Owner**, or relating in any way to any of the operations in which the **Owner** may be obligated to pay to the **Engineer** as compensation for services rendered by the **Engineer** under contract with the **Owner**. The

Engineer shall require its employees to execute patent applications and assignments thereof to the **Owner** or its nominees, and powers of attorney relating thereto for any country the **Owner** may designate, and shall take all other actions as the **Owner** may request to maintain and protect such inventions and improvements. The **Owner** shall pay all costs or charges incurred in protecting such inventions and improvements if the **Owner** desires to protect them. Before assigning any of the **Engineer's** employees to work under any contract with the **Owner** concerning this **Project,** the **Engineer** shall obtain from them agreements satisfactory to **Owner** complying in all respects with the terms and provisions of this Article.

16.3 The rights and obligations set forth in Article 16 shall survive the performance of this Agreement, or any termination, discharge or cancellation thereof

ARTICLE 17. Engineer's Seal, Responsibility and Warranties.

17.1 Engineer's Seal. The **Engineer** shall assign a responsible engineer or engineers licensed to practice in the State of Texas, who shall sign, seal and date all appropriate engineering submissions to the **Owner** in accordance with the Texas Engineering Practice Act and the Rules of the Stare Board of Registration for Professional Engineers.

17.2 Engineer's Responsibility. The **Engineer** shall be responsible for the accuracy of the work for the **Project** and shall promptly make necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer**. No additional compensation will be made to the **Engineer** for any necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer.**

The **Engineer's** responsibility for all questions arising from design errors and/or omissions will be determined by the **Owner** or a designee appointed by the **Owner**. The **Engineer** will not be relieved of the responsibility for subsequent correction of any such errors or omissions or for

clarification of any ambiguities until after the construction phase of the **Project** has been completed.

17.3 Warranties.

(a) The **Engineer** warrants that engineering design work performed by the **Engineer** hereunder shall be in accordance with sound engineering design practices and in conformance with applicable code and standards established for such work.

(b) Notwithstanding anything to the contrary contained in this Agreement, the **Owner** and the **Engineer** agree and acknowledge that the **Owner** is entering into this Agreement in reliance on the **Engineer's** experience and abilities with respect to performing the **Engineer's** services hereunder. The **Engineer** accepts the relationship of trust and confidence established between it and the **Owner** by this Agreement. The **Engineer** covenants with the **Owner** to use the **Engineer's** best efforts, skill, judgement and abilities to design the **Project** and to further the interests of the **Owner** in accordance with the **Owner's** requirements and procedures, in accordance with all professional standards, and in compliance with all applicable national, federal, state, county and municipal laws, regulations, codes, ordinances, orders and with those of any other body having jurisdiction. If the development of plans, specifications and estimates (hereinafter referred to as **"PS&E"**) are identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project**, prior to the commencement of construction, the **Engineer** shall certify in writing to the **Owner** that the **PS&E** for the **Project**, and the improvements when built in accordance therewith, conform to all applicable governmental regulations, statutes and ordinances then in effect. The **Engineer** represents covenants and agrees that there are no obligations, commitments or impediments of any kind that will limit or prevent performance of the **Engineer's** services.

(c) The **Engineer** represents, covenants and agrees that all of **Engineer's** services to be furnished by the **Engineer** under or pursuant to this Agreement form the inception of the Agreement until the **Project** has been fully completed, shall be of the standard and quality which prevail among engineers of similar experience, knowledge, skill and ability engaged in engineering practice throughout Texas under the same or similar circumstances involving the design and construction of **Project.**

(d) The **Engineer** represents, covenants and agrees that the **Engineer's** special talent, training and experience cause the **Engineer** to be the prime professional on the **Project;** that because of such talent and training, the **Engineer** envisions the construction of the **Project** in its entirely and possesses the special skills which enable the **Enginee**r to recognize dangerous conditions that a reasonable, prudent engineer having such special skills could anticipate may arise from the proper use of the **Project** after acceptance by **Owner;** and that the **Engineer** recognizes that any commissioners, elected officials, employees and agents of the **Owner,** plus residents and owners of property within the area affected by the **Project** are within a class of foreseeable persons who will be relying on the project being designed in a professional and safe manner.

(e) If the development of **PS&E** is identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the **Project,** the **Engineer** represents, covenants and agrees that the **PS&E** of the **Project** will be accurate and free from any material errors. The **Engineer** additionally represents, covenants and agrees to the following: that the design of the **Project** will conform to its foreseeable use as a **Project** with all the amenities as set forth in any **PS&E** developed by the **Engineer** for the **Project;** that the result of such **PS&E**, if built in accordance therewith, will be suitable for purposes for which the **Project** is designed; and the **Project** will be inspected in a

workmanlike, professional manner and will be suitable for the **Project's** intended purpose. The **Engineer's** responsibilities as set forth herein shall at no time be in any way diminished by reason of any approval by the **Owner** of any **PS&E** developed by the **Engineer** for the **Project**, nor shall the **Engineer** be released from any liability by reason of such approval by the **Owner**, it being understood that the **Owner** at all times is ultimately relying upon the **Engineer's** skill and knowledge in preparing such **PS&E.**

(f) In connection with the **Engineer's** performance of procurement services hereunder, if any, the **Enginee**r use its best efforts to obtain from all vendors of equipment and materials, fullest possible warranties against defective materials and workmanship for the benefit of the **Owner.**

ARTICLE 18.Engineer's Resources. The **Engineer** shall furnish and maintain, at the **Engineer's** own expense, office space for the performance of all services, skilled and sufficient personnel, as well as adequate and sufficient equipment to perform the services as required under this Agreement.

18.1 Project Manager. The **Engineer** shall provide a manager **(Project Manager)** for the **Project** that is a registered professional engineer in the State of Texas. The **Project** manager shall have such knowledge and experience as will enable that **Project Manager** during the course of the **Project** without prior consent of the **Owner.** If, due to situations beyond the control of the **Engineer,** the **Engineer** must change the **Project Manager** prior to the completion and acceptance of the **Project,** the **Engineer** will submit a request to change the **Project Manager** to the **Owner** for approval.

18.2 Employees of the Engineer. All employees of the **Engineer** shall have such knowledge and experience as will enable them to perform the duties assigned to them and required for the services under this Agreement. Any employee of the **Engineer** who, in the

opinion of the **Owner**, is incompetent, or whose conduct becomes detrimental to the work required under this Agreement, shall immediately be removed form association with the **Project** when so instructed by the **Owner.** The **Engineer** certifies that the **Engineer** presently has employed sufficient and qualified personnel, and will maintain sufficient and qualified personnel for performance of the services under this Agreement.

18.3 Documents/Information Exchange The purpose of this Article is to define the required automated resources, format for graphics files, and information exchange pertaining to the **Project.** Taking into consideration that the **Owner** has a significant investment is the development of the **Project,** there is a need for the **Engineer** to provide consistency in document development for information exchange. Consistency in document development for information exchange and production will help facilitate an economically efficient **Project**. Therefore, the **Engineer** shall provide the **Owner** with documents and information in accordance with the special requirement outlined in **EXHIBIT "B"** attached hereto.

ARTICLE 19. Indemnification. To the fullest extent permitted by applicable law, the **Engineer** and its agents, partners, subcontractors, and consultants (collectively **"Indemnitors**") shall and do agree to indemnify, and hold harmless the **Owner**, the **Owner's** respective directors, elected officials, employees and agents (collectively **"Indemnitees**") from and against all claims, damages, losses, liens, causes of action, suits, judgments and expenses, including attorney fees, of any nature, kind or description (collectively "Liabilities") of any person or entity whomsoever arising out of, caused by or resulting from the negligent performance of the **Engineer's** services through activities of the **Enginee**r, its agents, partners, subcontractors and/or consultants performed under this Agreement, and which are caused by or result from error, omission, or negligent act of the **Engineer** or of any person employed or contracted by the **Engineer** provided that any such **Liabilities** (1) are attributable to bodily injury, personal injury, sickness, disease or

death of any person, or to the injury to or destruction of tangible personal property including the loss of use and consequential damages resulting there from and (2) are caused in whole or in part by any negligent act or omission of the **Engineer,** anyone directly or indirectly employed by the **Engineer** or anyone for whose acts the **Engineer** may be legally liable. The **Engineer** shall also save harmless the **Owner** from any and all expense, including but not limited to, attorney fees which may be incurred by the **Owner** in litigation or otherwise resisting said claim or liabilities which may be imposed on the **Owner** as a result of such activities by the **Engineer,** its agents partners, subcontractors and/or consultants. In this connection, it is agreed and understood that the **Engineer** shall not be responsible for any portion of the liability proximately caused by the **Owner's** negligence.

ARTICLE 20.Joint and Several Liability. In the event more than one of the **Indemnitors** are connected with an accident or occurrence covered by the indemnification in Article 19 hereof, then each of such **Indemnitors** shall be jointly and severally responsible to the **Indemnitees** for indemnification and the ultimate responsibility among such **Indemnitors** for the loss and expense of any such indemnification shall be settled by separate proceedings and without jeopardy to any **Indemnitee**. The provisions of this Article shall not be construed to eliminate or reduce any other indemnification or right which the **Owner** or any of the **Indemnitees** has by law.

ARTICLE 21. Insurance. The **Engineer** shall obtain and maintain insurance in the limits of liability for each of the types of insurance coverage identified as follows.

(1) **Workers' Compensation**, endorsed with a waiver of subrogation in favor of the **Owner** in accordance with the statutory obligations imposed by Worker's Compensation or Occupational Disease laws under the Texas Workers' Compensation Law (**"Statutory Texas")**

(2) **Commercial General Liability**, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** ***all to the extent of the liabilities assumed by the Engineer under Article 19 and Article 20*** herein, in limits of liability not less than one million dollars (**$1,000,000**) combined single limit each occurrence and in the aggregate for bodily injury and property damage.

(3) **Texas Business Automobile Policy**, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** *all to the extent of the liabilities assumed by the Engineer under Article 19 and Article 20 herein*, in limits of liability not less than two hundred fifty thousand dollars (**$250,000**) each person for bodily injury, five hundred thousand dollars (**$500,000**) each occurrence for bodily injury, and one hundred thousand dollars (**$100,000**) each occurrence for property damage.

(4) **Professional Liability** in limits of **$1,000,000** each claim and aggregate.

The **Engineer** covenants and agrees to maintain an insurance policy in the minimum limits of liability for each of the types of insurance coverage identified above. The **Engineer** shall furnish the **Owner** with a certificate of insurance (***Hidalgo County*** **Certificate of Insurance**) showing the said policy to be in full force and effect during the period of service, identified in Article 3 hereto, for this Agreement. The completed Hidalgo County Certificate of Insurance shall be attached hereto and identified as **EXHIBIT "G"**- *Hidalgo County Certificate of Insurance*. The **Engineer** will be considered in breach of contract should the **Engineer** fail to maintain an insurance policy in the minimum limits of liability and requirements identified above while performing services for and under this Agreement, and will be subject to default and termination of the Agreement as outlined in Article 3.4 hereto. Additionally, the **Engineer** covenants and agrees to use its best efforts to maintain an insurance policy in the minimum limits of liability and requirements identified above until one year following the date of the acceptance of the **Project** by **Owner.**

ARTICLE 22. Compliance with Laws. The **Engineer** shall comply with all applicable Federal, State and local laws, statutes, codes, ordinances, rules and regulations and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this Agreement including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations and licensing laws and regulations. When required the **Engineer** shall furnish the **Owner** with satisfactory proof of its compliance therewith. **ARTICLE 23. Non-collusion**. The **Engineer** warrants that the **Engineer** has not employed or retained any company or persons, other than a bona fide employee working solely for the **Engineer**, to solicit or secure this Agreement, and that the **Engineer** has not paid or agreed to pay any company, engineer or any other person or entity any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award or execution of this Agreement. For breach or violation of this warranty the **Owner** shall have the right to annul this Agreement without liability or, in the **Owner's** discretion, to deduct from the *Services Fee*, or otherwise recover, the full amount of each fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 24. Gratuities. The **Owner** mandates that employees of the **Owner** shall not accept any benefits, gifts or favors from any person doing business or who reasonably speaking may do business with the **Owner** under this Agreement; the only exceptions allowed are ordinary business meals. Any person doing business with or who may reasonably seeking to do business with the **Owner** under this Agreement may not make any offer of benefits, gifts or favors to **Owner** employees, except as mentioned herein above. Failure on the part of the **Engineer** to adhere to this provision may result in the termination of this Agreement.

ARTICLE 25. Payment of Franchise Tax. The **Engineer** hereby certifies that the **Engineer** is not delinquent in Texas franchise tax payments, or that the **Engineer** is exempt

from, or not subject to, such as tax. A false statement concerning corporation's franchise tax status shall constitute grounds for termination of the Agreement at the sole option of the **Owner.**

ARTICLE 26. Disputes. The **Engineer** shall be responsible for the settlement of all contractual and administrative issues arising out of any procurement made by the **Engineer** in support of the services under this Agreement.

ARTICLE 27. Severability. In the event any one or more of the provisions contained in this Agreement shall for any reason, be held to be invalid, illegal, or unenforceable in any respect such invalidity, illegality or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein .

ARTICLE 28. Notices. All notices to either party by the other required under this Agreement shall be personally delivered or mailed to such party at the following respective addresses:

OWNER	**ENGINEER**
Hidalgo County	**Jimenez Engineering Solutions** d/b/a
Attn: County Judge	**International Consulting Engineers**
100 E. Cano, 2nd Floor	Attn: Luis Nava, P.E.
Edinburg, Texas 78539	1722 N. Closner, Suite B
	Edinburg, Texas 78541

The Address may be changed by either party by written notice and notice sol mailed shall be effective upon mailing.

ARTICLE 29. Miscellaneous Provisions.

(a) This Agreement constitutes the entire Agreement between the **Engineer** and the **Owner** relating to the work herein described and supersedes any prior understanding or written or oral contracts between the parties respecting the subject matter defined herein.

These are no previous or contemporary representations or warranties of the **Owner** or the **Engineer** not set forth herein.

(b) Except as specifically provided herein no modification, waiver, termination, rescission, discharge or cancellation of this Agreement or of any terms thereof shall be binding on the **Owner** unless in writing and executed by an officer or employee of the **Owner** specifically authorized to do so.

(c) No waiver of any provision of or a default under this Agreement shall affect the right of the **Owner** thereafter to enforce said provision or to exercise any right or remedy in the event of any other default whether or not similar.

(d) No modification, waiver, termination, discharge or cancellation of this Agreement or of any terms thereof shall impair the **Owner's** right with respect to any liabilities whether or not liquidated of the **Engineer** to the **Owner** theretofore accrued.

(e) All rights and remedies of the **Owner** specified in this Agreement are in addition to the Owner's other rights and remedies.

(f) The **Engineer** shall remain an independent contractor and shall have no power nor shall the **Engineer** represent that the **Engineer** has any power to bind the **Owner** or to assume or to create any obligation express or implied on behalf of the **Owner** except as specifically authorized in advance by the **Owner.**

(g) The Agreement shall be construed under the laws of the State of Texas and is performable in Hidalgo County, Texas.

(h) This Agreement may only be amended by a written document executed by the Owner and the **Engineer** as provided by Article 8 herein.

ARTICLE 30. Signatory Warranty The undersigned signatory or signatories for the **Engineer** hereby represent and warrant that the signatory is an officer of the organization for

which he or she has executed this Agreement and that he or she has full and complete authority to enter into this Agreement on behalf of the **Engineer.** The above-stated representations and warranties are made for the purpose of inducing the **Owner** to enter into this Agreement.

ARTICLE 31. Texas Law to Apply. This agreement shall be construed under and in accordance with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Hidalgo County, Texas. The parties hereby consent to personal jurisdiction in Hidalgo County, Texas.

ARTICLE 32. Immunities. Nothing in this agreement is intended to and County does not hereby waive, release or relinquish any right to assert any of the defenses County enjoys by virtue of the state or federal constitution, laws, rules or regulations, and any sovereign, official or qualified immunity available to County as to any claim or action of any person, entity, or individual against County.

WITNESS WHEREOF, the **Engineer** and the **Owner** have caused this **Agreement for Professional Services** to be effective as of the _____ day of _____**, 2016.**

ENGINEER:
JIMENEZ ENGINEERING SOLUTIONS, LLC
d/b/a **INERNATIONAL CONSULTING ENGINEERS**

By:_____
Luis J. Nava, P.E.

OWNER:
HIDALGO COUNTY

By:_____
Ramon Garcia, County Judge

ATTEST:

_____
Arturo Guajardo, Jr., County Clerk

Approved by Commissioners' Court on: _____, 2016

APPROVED AS TO FORM:
Atlas, Hall & Rodriguez, L.L.P.

By:_____
Stephen L. Crain

ATTACHMENTS:

LOCATION MAP
EXHIBIT A-1 -RFQ Procurement Packet
EXHIBIT A -Scope of Services to be provided by the Owner
EXHIBIT B -Scope of Services to be provided by the Engineer
EXHIBIT C -Work Schedule
EXHIBIT D -Contract Rates
EXHIBIT D-1 -Estimated Project Fee Schedule
EXHIBIT E -Sample Work Authorization Form
EXHIBIT F -Sample Supplemental Agreement Form
EXHIBIT G -Certificate of Insurance (*Hidalgo County)*

EXHIBIT A-1

-REQUEST FOR QUALIFICATIONS (RFQ) PROCUREMENT PACKET

Hidalgo County Purchasing Department
2812 S. Business Highway 281
Edinburg, Texas 78539
Tel: (956) 318-2626 Fax(956) 318-2629

February 01, 2016

Participant's name

Address

City

State, Zip Code

Re: **HIDALGO COUNTY**
Request for Qualifications - **"Professional Engineering Services Pool-Hidalgo County"**
(Including all funding sources, programs, and entities)
RFQ No: 2016-002-02-17-YZV

Dear Respondents:

Enclosed please find a Request for Qualifications (RFQ) packet for your consideration. Hidalgo County Purchasing Department welcomes and appreciates your participation in the RFQ process.

We have updated our RFQ packet. Carefully read and review all instructions, requirements, specifications and/or scope of work included in this packet.

If any further assistance is required, please do not hesitate to call the Purchasing Department at (956) 318-2626.

Sincerely,

Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent

MLS/yzv

Enclosures

Hidalgo County Purchasing Department
2812 S. Business Highway 281
Edinburg, Texas 78539
Tel: (956) 318-2626 Fax(956) 318-2629

REQUEST FOR QUALIFICATIONS (RFQ)

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HIDALGO COUNTY
"Professional Engineering Services Pool"
(Including all funding sources, programs, and entities)

RFQ No: 2016-002-02-17-YZV

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2.	Request for Qualifications, Legal Notice	9
3.	Exhibit A, Requirements	8
4.	Exhibit B, Evaluation Criteria	1
5.	Attachment B –Procurement Form –Areas of Specialization	1
6.	Exhibit C, Insurance Requirements,	4
7.	Exhibit D1, CIQ Conflict of Interest Questionnaire	3
8.	Exhibit D2, CIS-Conflict Disclosure Statement	3
9.	Exhibit E, Proposer's Affidavit	1
10	Vendor/Bidder Application and W-9 form	6
11.	Certification Regarding Debarment	1
12.	RFQ Submittal Check List	1

The above mentioned items shall be found in the Request for Qualifications (RFQ) packet that is attached herewith. Should you find that any of the items are not attached in its entirety please contact Purchasing by calling (956) 318-2626, advise of missing documentation, and Purchasing will forward information either through facsimile or by U.S. Mail.

Thank you.

Martha L. Salazar

Martha L. Salazar, CPPB, Purchasing Agent

February 01, 2016
Date

REQUEST FOR QUALIFICATIONS (RFQ)

HIDALGO COUNTY
(Including all funding sources, programs, and entities)

"Professional Engineering Services Pool"

RFQ NO: 2016-002-02-17-YZV

Acceptance Due Date: FEBRUARY 17, 2016

Martha L. Salazar, CPPB, Purchasing Agent
Hidalgo County Purchasing Department

Project Buyer Contact Information:

Yolanda Velasquez, Buyer III
(956) 292-7000 Ext. 4881
yolanda.velasquez@co.hidalgo.tx.us

1. Sealed qualifications will be received for "HIDALGO COUNTY (Including all funding sources, programs, and entities) PROFESSIONAL ENGINEERING SERVICES POOL", in accordance with the requirements attached hereto as Exhibit "A." Qualifications should address all requirements set forth. Respondents may suggest substitutions of features which they feel would be in the best interest of Hidalgo County ("County"). Strong rationale must be presented for any deviation from the requirements. Hidalgo County reserves the right to reject the deviation and its effect on the overall qualifications.

2. One (1) original, three (3) copies of all qualifications and eight (8) CDs in PDF Format are required with the respondent's name and address clearly typed/printed on upper left hand corner and the proper notation clearly typed/printed on the lower left hand corner of the envelope and/or package, *RFQ No.: 2016-002-02-17-YZV- "HIDALGO COUNTY (Including all funding sources, programs, and entities)* PROFESSIONAL ENGINEERING SERVICES POOL", and in County's Purchasing Department, Physical Location: 2802 S. Business Hwy. 281 Postal/ Mailing: 2812 S. Business Hwy. 281 New Administration Building , Edinburg, Texas, ON OR BEFORE 9:30 A.M., WEDNESDAY, FEBRUARY 17, 2016.

NO FACSIMILES OR LATE ARRIVALS WILL BE ACCEPTED. ANY QUALIFICATION RECEIVED AFTER THAT TIME WILL NOT BE OPENED AND WILL BE RETURNED. OVERNIGHT MAIL MUST ALSO BE PROPERLY LABELED ON THE OUTSIDE OF EXPRESS ENVELOPE OR PACKAGE IN REFERENCE TO QUALIFICATION.

Hidalgo County reserves the right to refuse and reject any/all qualifications and to waive any/all formalities or technicalities, or to accept the proposal considered the best and most advantageous to Hidalgo County.

3. Hidalgo County reserves the right to separate and accept, or eliminate any item(s) listed under this qualification that it deems necessary to accommodate budgetary and/or operational requirements. Hidalgo County also reserves the right to reject any or all qualifications submitted and further reserves the right to design the evaluation criteria to be used in selecting the lowest and best qualification for approval. Receipt of any qualification shall under no circumstances obligate County to accept the lowest dollar qualification. The award of this contract shall be made to the responsible offeror whose qualification is determined to be the best evaluated offer resulting from negotiation, taking into consideration the relative importance of price and other evaluation factors as herein set forth.

4. Failure of the delivered item to perform as specified or failure to meet the stated delivery schedule shall release Hidalgo County from all obligations to the contracting party with regard to the item(s) in question. In such event, County may elect to award the contract to the next-lowest responsible respondent, or to reject all qualifications and re-advertise.

5. For work to be performed at a County owned or operated location, each respondent shall, in its sole discretion, visit the job site before preparing the qualification and thoroughly familiarize himself/herself with existing conditions. Respondent should take field dimensions and note all circumstances which affect the dollar amount of the qualification.

6. Descriptive specifications are referenced in this document to indicate the general kind and quality of equipment desired by Hidalgo County. Due to various styles and models of equipment, respondents are required to include illustrations, specifications, explanation of warranties, and service data with their qualification including catalogue numbers and any necessary references.

7. Proposed prices are to remain firm for a minimum of ninety (90) days after priced qualification opening.

8. County reserves the right to accept or reject any or all qualifications.

9. Any interpretations, amendments, corrections or changes to this qualification document must be in a written addendum and signed by the County Judge or his designee. Addenda will be mailed to all who are known to have received a copy of the Request for Qualifications. Respondents shall acknowledge receipt of all addenda as a part of their qualification.

10. Costs are to be net F.O.B., County Prepaid.

11. County is exempt from Federal Excise Tax, State Tax and Local Tax. DO NOT include tax in cost figure. If it is determined that tax was included in the cost figures it will not be included in the tabulation of any awards. Tax exemption certificates will be furnished upon request.

12. Funds for this procurement have been provided through the County budget for this fiscal year only. County, on an annual basis, has the right to reconsider a contract during the budget process for ensuing years if financial resources of County are insufficient to meet the liabilities of said contract. The award of a qualification or contract hereunder will not be construed to create a debt of the County which is payable out of funds beyond the current fiscal year.

13. DELIVERY INSTRUCTIONS:

- No deliveries accepted after 3:00 P.M., Monday-Friday.
- At least seventy two (72) hours prior notice of delivery must be given to Martha L. Salazar, CPPB, Purchasing Agent, before delivery will be accepted.
- If you need additional information call the office listed below:

Hidalgo County Purchasing Department
Martha L. Salazar, CPPB, Purchasing Agent
(956) 318-2626

14. BILLING AND PAYMENT INSTRUCTIONS:

- Invoices must include:
  a) Name and address of successful respondent
  b) Name and address of receiving department or official
  c) Purchase Order Number and Contract number (if any)
  d) Notation- HIDALGO COUNTY (Including all funding sources, programs, and entities) PROFESSIONAL ENGINEERING SERVICES POOL"
  e) Descriptive information as to the items or services delivered, including product code, item number, quantity, etc.
- Discount payments will be considered when offered.
- Contact person for Billing and Payment questions:

HIDALGO COUNTY AUDITOR'S OFFICE
Postal/Mailing 2808 S. Business Hwy. 281
Edinburg, Texas 78539
(956) 318-2511

15. SCHEDULE OF EVENTS

Qualification Opening, 9:30 A.M.	FEBRUARY 17, 2016
Award of Contract	MARCH 16, 2016
Commence Work or Deliver Products	_____, 2016

16. HIDALGO COUNTY HOLIDAYS

2016 YEAR	
New Year's Day	01/01/2016
Martin Luther King Day	01/18/2016
President's Day	02/15/2016
Good Friday	03/25/2016
Memorial Day	05/30/2016
Independence Day	07/04/2016
Labor Day	09/05/2016
Columbus Day	10/10/2016
Veteran's Day	11/11/2016
Thanksgiving Day	11/24/2016 & 11/25/2016
Christmas Day	12/23/2016 &12/26/2016
New Year's Eve	12/30/2016

17. ~~BID OR PERFORMANCE BOND~~ AND DEBARMENT CERTIFICATION; ~~PAYMENT UNDER CONTRACT:~~

- ~~If the contract proposed is for the construction of public works or is for a contract for goods and services exceeding $100,000, all bidders shall furnish a good and sufficient bid bond in the amount of five percent of the total contract price. A bid bond must be executed with a surety company authorized to do business in Texas~~. All respondents are also required to furnish a certification or acknowledgment stating that the contractor or vendor is free from suspension or debarment pursuant to federal regulation 45CFR76.

- ~~Together with the signing of a contract or issuance of a purchase order following the acceptance of a qualification, and prior to commencement of the actual work, the respondent shall furnish a performance bond to the County for the full amount of the contract, if that contract exceeds $50,000.~~

- ~~If the contract is for $50,000 or less, no money will be paid to the contractor until completion and~~

~~acceptance of the work or the fulfillment of the purchase obligation to the County, and, if applicable, the receipt by County of satisfactory evidence that all subcontractors and materialmen have been paid.~~

- ~~If a contract is for the construction, alteration or repair of public buildings or public works, the contractor *shall* provide a payment bond for a contract in excess of Twenty Five Thousand Dollars ($25,000.00), as required by Tex. Govt. Code Ch. 2253.~~

- ~~For requirements contracts, bond requirements are determined by applying the proposed unit price to the estimated quantities included in the specifications.~~

18. ETHICAL STANDARDS:

- It shall be a breach of ethics to offer, give or agree to give any elected official, department head or employee, or former elected official, department head or employee, of the County, or for any elected official, department head or employee or former elected official, department head or employee of the County, to solicit, demand, accept or agree to accept from another person, entity or organization, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter pertaining to any program requirement or a contract or subcontract, or to any solicitation or qualification therefore pending before any department or agency of the County.

- It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for the County, or any person associated therewith, as an inducement for the award of a subcontract or order.

- No public official shall have an interest in a contract awarded hereunder except in accordance with Tex. Loc. Govt. Code Chapter 171.

- NOTICE:
  ALL COMMUNICATIONS BY A VENDOR TO THE COUNTY, ITS OFFICIALS, AND DEPARTMENT HEADS REGARDING THIS PROCUREMENT SHALL BE DONE THROUGH THE HIDALGO COUNTY PURCHASING DEPARTMENT.

  No vendor, its representative, agent, or employee shall engage in private communication with a member of the Hidalgo County Commissioners Court or county department heads regarding any procurement of goods or services by the County from the date that the bid, RFP, or RFQ is released. No private communication regarding the purchase shall be permitted until the procurement process is complete and a purchase order is granted or a contract is entered into. Members of the commissioners court are required to make a reasonable effort to inform themselves regarding potential procurements and have a duty to inquire of vendors, their representatives or employees, the nature of any private communication being sought prior to engaging in any communication. “Private Communication” means communication with any vendor outside of a posted meeting of the governing body, a regular meeting of a standing or appointed committee, or a negotiation with a vendor which has been specifically authorized by the governing body.

19. DISCLOSURE OF CONFLICT OF INTEREST

Effective January 1, 2016, Chapter 176 of the Texas Local Government Code requires that any vendor, person, consultant or contractor considering doing business with Hidalgo County ("the County") to disclose in the Conflict of Interest Questionnaire (the "CIQ") attached as Exhibit D-1, the vendor, person, consultant or contractor's affiliation or business relationship that might cause a conflict of interest with the County. By law, the CIQ must be filed with the Hidalgo County Clerk's Office no later than the seventh business day after the date the person becomes aware of facts that require that statement to be filed. The disclosure requirement applies to a person or business that contracts or seeks to contract with Hidalgo County for the sale or purchase of property, goods or service. Any purchase order or contract resulting from this process shall be considered null and void if the successful respondent fails to comply with Texas Local Government Code Chapter 176. Vendors, consultants, contractors and others who desire to conduct business with Hidalgo County are encouraged to refer to Texas Local Government Code Chapter 176 for details of this law. An offense under Texas Local Government Code Chapter 176 is a Class C Misdemeanor.

Completed Form CIQ must be submitted to the Hidalgo County Clerk's Office located at 100 N. Closner, Edinburg, Texas 78539 - Hidalgo County Courthouse.

COMPLETION AND SUBMISSION OF FORM CIQ IS THE SOLE RESPONSIBILITY OF THE PROSPECTIVE RESPONDENT. QUESTIONS REGARDING COMPLIANCE SHOULD BE DIRECTED TO YOUR LEGAL COUNSEL.

20. CERTIFICATE OF INTERESTED PARTIES (FORM HB1295)

As of January 1, 2016, to comply with Texas Government Code Section §2252.908, and the rules issued by the Texas Ethics Commission found in Title 1, Section 46.1, 46.3 and 46.5 of the Texas Administrative Code, we have updated and revised our RFQ packet. In accordance with these requirements, business must submit a completed Certificate of Interested Parties Form 1295 to the County before the County may enter into a contract with the business entity. In box 3 of Form 1295, you will provide the RFQ No. as shown on the packet. Once completed and filed with the Texas Ethics Commission, Form 1295 must be printed and signed in the presence of a notary and submitted to our office either by facsimile transmission to (956) 292-7612 or via email to: yolanda.velasquez@co.hidalgo.tx.us Hidalgo County cannot enter into a contract until Form 1295 is submitted. Therefore, failure to timely submit Form 1295 signed and notarized may result in delay of award. Full instructions for completion and submittal of Form 1295 may be found on the Texas Ethics Commission website:

https://www.ethics.state.tx.us/tec/1295-Info.htm

THE AWARDED VENDOR WILL HAVE THIRTY (30) DAYS TO SUBMIT THE SIGNED NOTARIZED FORM 1295. HIDALGO COUNTY CANNOT ENTER INTO A CONTRACT UNTIL FORM 1295 IS SUBMITTED.

FORM CIS (LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT will be included in packet as Exhibit "D-2".

COMPLETION AND SUBMISSION OF FORM CIS IS THE SOLE RESPONSIBILITY OF THE PROSPECTIVE RESPONDENT. QUESTIONS REGARDING COMPLIANCE SHOULD BE DIRECTED TO YOUR LEGAL COUNSEL.

21. If, during the life of any contract or qualification awarded, the successful respondent's net prices generally available to other customers for items awarded herein are reduced below the contracted price, it is understood and agreed that the benefits of such reduction shall be extended to County.

22. Qualifications, and all goods and services provided thereunder, shall comply with all federal, state and local laws concerning this type(s) of goods and/or services.

23. Minimum Standards For Responsible Prospective Respondents: A prospective respondent must affirmatively demonstrate respondent's responsibility. A prospective respondent, by submitting a qualification, represents to County that it meets the following requirements:

- Possess or is able to obtain adequate financial resources as required to perform under the qualification;
- Be able to comply with the required or proposed delivery schedule;
- Have a satisfactory record of performance;
- Have a satisfactory record of integrity and ethics;
- Be otherwise qualified and eligible to receive an award.

24. Successful respondent will pay or cause to be paid, without cost or expenses to County, all FICA, FUTA/SUTA and Federal Income Withholding Taxes of all employees, and all wages and benefits as required by Federal or State law. Successful respondent's officers, agents and/or employees will not be entitled to any benefits of an employee or elected official of County, including, but not limited to, benefits associated with County's civil service system.

25. Any contract award to a successful respondent will be in effect until (a) the contract expires, (b) delivery and acceptance of products, and/or performance of services ordered, or (c) terminated by County with thirty (30) day's written notice prior to cancellation.

26. County reserves the right to enforce performance of any contract awarded hereunder in any manner prescribed by law or deemed to be in the best interest of the County in the event of breach or default by successful respondent; County reserves the right to terminate any contract immediately in the event a successful respondent fails to:

A. Meet schedules;
B. Pay any required fees or taxes; or
C. Otherwise perform in accordance with the requirements.

27. Successful respondent shall defend, indemnify and save harmless County and all its elected officials, officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful respondent, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from qualification award.

Successful respondent indemnifies and will indemnify and save harmless County from liability, claim or demand on their part, agents, servants, customers, and/or employees whether such liability, claim or demand arise from event or casualty happening or within the occupied premises themselves or happening upon or in any of the halls, elevators, entrances, stairways or approaches of or to the facilities within which the occupied premises are located. Successful respondent shall pay any judgment with costs which may be obtained against County growing out of such injury or damages, and shall, upon request, provide a defense to County by counsel reasonably acceptable to County. Successful respondent's indemnity hereunder shall include, but is not limited to, claims relating to patent, copyright or trademark infringement, and the like, arising out of the goods or services provided by successful respondent.

28. Successful respondent shall warrant that all items/services shall conform with the specifications and/or all warranties provided under the Uniform Commercial Code and be free from all defects in material, workmanship and the like. Items supplied under a contract pursuant to this Request for Qualifications shall be subject to County's approval. Items found to be defective or not meeting specifications shall be replaced by successful respondent within two business days at no expense to County. Items not picked up within one (1) week after notification shall be deemed a donation to County and may be used or disposed of at County's discretion and without waiver of any other rights of County as to the item's nonconformity.

29. This document and any disputes arising hereunder shall be governed and construed according to the laws of the State of Texas, and will be performable exclusively in Hidalgo County, Texas.

30. The successful respondent shall not assign, sell, transfer or convey its rights under any awarded contract, in whole or in part, without the prior written consent of County.

31. Respondents shall provide with the qualification response, a list of at least three (3) references where like services have been supplied by their firm. Include the name of the business or government, address, telephone number and name of representative or contact person.

32. Respondents must provide **all** documentation requested with this Qualification in their response. Failure to provide this information may result in rejection of the qualification as none conforming.

Request for Qualifications
for
HIDALGO COUNTY
(Including all funding sources, programs, and entities)

"Professional Engineering Services Pool"

To: Martha L. Salazar, CPPB, Purchasing Agent
Hidalgo County Purchasing Department
Physical Location: 2802 S. Business Hwy. 281
Postal/ Mailing: 2812 S. Business Hwy. 281
New Administration Building
Edinburg, Texas 78539

In accordance with the Requirements, and subject to all laws and regulations of the United States and state and local laws, the undersigned respondent proposes and commits to furnish all labor, equipment, material, software and services as set forth in the documents hereinbefore mentioned. The undersigned further agrees, upon acceptance of its qualification, to execute a contract and/or Purchase Order issued by Hidalgo County for performing and completing the work described in the Requirements within the time stated and for the prices proposed in the documents attached hereto and made a part hereof.

Respondent acknowledges receipt of all of the pages of the documents referenced in the Request for Qualification Checklist presented in connection with this procurement. Respondent understands that Hidalgo County reserves the right to reject any or all qualifications and further reserves the right to design the evaluation criteria to be used in selecting the lowest and best qualification.

Respondent agrees that this qualification shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving qualifications, as contained in the Requirements.

Respectfully submitted,

Firm: _____

Address: _____

By: _____

Printed Name: _____

Title: _____

The County of Hidalgo will be accepting Statements of Qualifications from qualified State of Texas registered Professional Engineering firms in order to establish a pre-qualified pool of Engineers on an "As Needed Basis" per project by all County Departments and/or applicable Programs requiring said services as set forth in the requirements. Upon approval and acceptance by Hidalgo County Commissioners' Court, the term of the pre-qualified pool of Engineers will be for a period starting **March 16, 2016 and ending March 15, 2017**. The Hidalgo County Purchasing Department will receive sealed envelopes containing Statements of Qualifications for the provision of **"PROFESSIONAL ENGINEERING SERVICES POOL"-HIDALGO COUNTY** (including all funding sources, Programs, and Entities as specified herein. Statements of Qualifications will be accepted until **9:30 A.M., Wednesday, FEBRUARY 17, 2015. ANY RFQ RECEIVED AFTER THAT TIME WILL NOT BE OPENED AND WILL BE RETURNED.**

The following outlines the Request For Qualifications:

SECTION I - GENERAL TERMS AND CONDITIONS

RFQ DOCUMENT SUBMITTALS/DELIVERY:

A total of **one (1) original, three (3) copies and eight (8) CD's in PDF format** of the RFQ shall be submitted as part of your response.

Respondents must complete and include in their response, all documentation requested in this RFQ. Refer to enclosed RFQ Check List form for documents to be included with your response.

Hidalgo County is requesting that statements of qualifications responses be sealed, clearly marked and/or labeled with the Company's name, RFQ Number, Project Title, and Opening Date, and be delivered to Martha L. Salazar, CPPB, Purchasing Agent, at:

US Postal Mail Address:
Martha L. Salazar, CPPB, Purchasing Agent
Hidalgo County Purchasing Department
Administration Building
2812 S. Business Hwy 281
Edinburg, Texas 78539

Physical Address:
Martha L. Salazar, CPPB, Purchasing Agent
Hidalgo County Purchasing Department
Administration Building
2802 S. Business Hwy. 281
Edinburg, Texas 78539

Hidalgo County requires respondents, when hand delivering statements of qualifications, to have a Purchasing Department representative time/date stamp and initial the envelope when dropping RFQ off.

All costs and expenses associated with the preparation and submission of (rfq's, bids, proposals and/or quotes) shall be the responsibility of the respondent and no reimbursement for such charges or expenses shall be passed onto Hidalgo County.

PROPOSER'S AFFIDAVIT:
Respondents to this RFQ must submit a signed Proposer's Affidavit (attached herein in Exhibit E) certainly that the submission is (1) not the result of Collusion as described in the Proposer's Affidavit,

(2) that the Respondent does not have a Conflict of Interest as described in the Proposer's Affidavit, or (3) that the Respondent has not and will not attempt to lobby directly or indirectly as described in the Proposer's Affidavit.

NON-DISCRIMINATION:
Respondents, during the performance of this contract, will not discriminate against any employee or applicant for employment because of race, religion, sex, national origin or disability except where religion, sex, national origin or disability is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor.

PROCESSING TIME FOR PAYMENT:
Respondents are advised that a minimum of thirty (30) days is required to process invoices for payment.

ELECTRONIC TRANSMISSION OF RFQ's:
Hidalgo County's Purchasing Department will not accept telegraphic or electronically transmitted submissions.

PROOF OF FINANCIAL AND BUSINESS CAPABILITY:
Respondents must, upon request, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these requirements. Hidalgo County will make the final determination as to the vendor's ability.

RESPONDENT DEFAULT:
Hidalgo County reserves the right, in case of respondent default, to procure the articles or services from other sources and hold the defaulting respondent responsible for any excess costs occasioned thereby.

RESTRICTIVE OR AMBIGUOUS REQUIREMENTS:
It is the responsibility of the respondent to review the Request for Qualifications (RFQ) packet and to notify in writing the Purchasing Department if the requirements are formulated in a manner that would unnecessarily restrict competition. These criteria also apply to requirements that are ambiguous.

RFQ QUESTIONS AND ANSWERS: Any protest(s) or question(s) regarding the requirements or request for qualifications procedures must be received in the Purchasing Department **via facsimile to (956)292-7612 or via e-mail to yolanda.velasquez@co.hidalgo.tx.us NO LATER THAN Wednesday, February 10, 2016** at 5:00 p.m. Responses will be sent to all applicants by **Friday, February 12, 2016 TELEPHONE INQUIRIES WILL NOT BE ACCEPTED.**

SIGNING OF QUALIFICATIONS:
In order to be considered, all submittals **must** be signed. **Please sign the original in blue ink**.

WAIVING OF INFORMALITIES:
Hidalgo County reserves the right to waive minor informalities or technicalities when it is in the best interest of Hidalgo County.

SUBCONTRACTING:

The successful submitter may not subcontract the award without the written consent of the Commissioners' Court of Hidalgo County.

TERM OF POOL:
The pool term is for a period of one (1) year or upon completion of project(s) unless project specific for more than one (1) year.

DAVIS BACON ACT: (If Applicable)
All selected and awarded firms are required to include the Davis-Bacon Act when advertising and developing project specifications.

SECTION II - RFQ REQUIREMENTS

REQUEST FOR QUALIFICATIONS:
The required contents and limitations for the preparation of the RFQ are described in this section. Failure to provide the requested information or adhere to any County limitations will result in disqualification of the submitted RFQ.

UNDERSTANDING OF THE PROJECT:
This section should demonstrate the respondent's understanding of the project needs, the work required, and any local issues or concerns. This description should be concise, candid, and limited to 3 pages in length.

FIRM QUALIFICATIONS:
The County of Hidalgo is seeking to contract with a competent engineering firm(s), registered and licensed to practice in the State of Texas that has had experience in, but not limited to, the following areas:

- Roadway, Bridge and General Design and Construction
- Federal, State and County-funded construction projects
- Solid Waste related projects
- Mechanical Engineering Projects

Additionally, this section should include a description of the firm's project personnel and their most recent (and varied) projects. For each project, a client contact name and phone number should be included for reference purposes. Additionally, the names of the personnel proposed for this project who participated in the listed projects should be provided. This project list is limited to 5 pages and should include the following;

1) Area firm specializes in
2) Minimum years of experience
3) Project(s)

PERSONNEL AND STAFFING:
The firm should provide an organizational chart for the project and a summary paragraph of the project work to be performed by each proposed staff member. Biographic summaries that highlight

the experience relevant to the specific project responsibilities should be provided for all proposed personnel. There is a one (1) page limitation for each biographic summary provided.

SCOPE OF SERVICES:

The engineering services contract will encompass all project-related engineering services to the County of Hidalgo including, but not limited to, the following:

A.

- Route and Design Studies
- Social, Economic, Environmental Studies and Public Involvement
- Right of Way Maps and Data
- Utility Adjustments
- Surveying
- Pre-Design

B.

- Roadway Design
- Drainage Design
- Solid Waste
- Signing, Markings and Signalization
- Traffic Control Plans
- Bridge Design
- Plans and Specifications
- Bid Preparation

C.

- Building Design
- Plans, Drawings and Specifications
- Bid Package Preparation

D.

- Construction Contract Management
- Conduct Construction Materials Engineering and Testing Services
- Design for New Construction
- Design for Alterations/Renovations
- Needs Assessment

- ADA Compliance
- Code Analysis
- Cost Estimating

E.

- Soil/Rock and Foundation Studies
- Excavations and Trenches
- Dams and Cut or Filled Slopes
- Pavements
- Water and Waste Retention/Disposal
- Specialized Testing and Instrumentation

Other Engineering Services include:
Project Development Management, Facility Analysis & Master Planning, Site Planning & Analysis, Roof Design, Parking Design, Security Design, Energy Conservation, Ventilation Design, Acoustical Design, Asbestos Abatement Monitoring, etc.

Additionally, this section should include, but not restricted to the following information:

A. Firm name, address, phone number and person(s) to contact regarding the Statement of Qualifications.

B. Qualifications and recent experience of the firm and key personnel relative to the performance of similar services for public entities. This should also include the following information:

    1. Copy of current license certification with state seal
    2. History of engineering certification from the State of Texas.
    3. List of projects related to the subject areas within the past year.

C. List of in-State references including the name, address and phone number of the person most closely associated with the firm's prior project performance.

D. Ability to commence services immediately after successfully negotiating a contract for services.

E. Statement regarding an Affirmative Action Program.

PARTICIPATING FIRMS ARE NOT TO PROVIDE A FEE PROPOSAL WITH THIS SUBMITTAL:
The fee will be negotiated in accordance with the Professional Services Procurement Act, Tex. Govt. Code Ann. 2254.001, et seq.

PART III – SELECTION / EVALUATION

SELECTION PROCEDURES/EVALUATION PROCESS:
The evaluation system consists of a 100-point system.

1. **PROFESSIONAL QUALIFICATIONS OF PROJECT TEAM (20)**
   The firms should provide information on their proposed professional team members, i.e. applicable certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract. The professional team members responsible/assigned to assist County projects shall be identified in the organizational chart. Team members shall have experience in performing various types of contracts for counties, cities, irrigation districts, TX DOT or other clients as stated in the Request for Qualifications. A list of, and scope of, the various projects, for comparative purposes, shall be included in an appendix.

2. **EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES (25)**
   In addition to the Project Manager and the Professional Team Member(s), the provider shall designate experienced engineering staff to completely and efficiently perform the work, either through their own personnel, sub-providers or commitment to hire additional staff. The proposal shall identify the project team composition, project leadership, reporting responsibilities and address how sub-providers, if any, will fit into the management structure. Résumés of the key technical staff members, limited to two (2) pages per person. must be included in an appendix, as well as narrative descriptions of projects proposed as similar work experience.

3. **METHODOLOGY (20)**

   The RFQ should provide a description of the firm's approach to the methodology and management to the scope of services for the project.

4. **UNDERSTANDING OF PROJECT/SIMILAR PROJECTS (25)**
   The proposal shall include the following:

   * demonstrate an understanding of the scope of services
   * address appropriate Federal/State/Local regulations and policies
   * identify information to be gathered or obtained

   Responsiveness to RFQ:
   - Response is Clear;
   - Response is Well Organized;
   - Easy to Evaluate;
   - Appropriate to this RFQ

   The firms should provide as much background information as to it's experience in providing similar services to State, City, County or any other governmental agencies. Reference information should be as current as possible, especially contact persons and telephone numbers.

5. **FAMILIARITY WITH APPLICABLE RULES AND REGULATIONS (10)**
   The RFQ should indicate through past experience of the proposed Team that they possess sufficient knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies (as required).

STATEMENT OF QUALIFICATIONS GRADING AND RANKING PROTOCOL:

Once a Project has been identified and it is determined that Engineering services are required, approval to seek engagement for professional services is sought from Hidalgo County Commissioners Court. The following protocol and procedures are utilized;

1. Hidalgo County Commissioners' Court, Elected Official and/or the User Department in need of Engineering Services will nominate (at the minimum) three (3) firms from Hidalgo County's approved pool of firm, thereafter, will review, score and evaluate the statement of qualifications received in response to this Hidalgo County Request for Qualifications;

2. A grid of the scores will be presented to Commissioners' Court for the purpose of **ranking and approval** for the Purchasing Department to enter into negotiations with the number one (1) ranked firm;

NEGOTIATION PROCESS:

Negotiations will commence with Commissioners' Court approved number one ranked firm;

1. Firm(s) will be asked to submit (as part of those negotiations) a "scope of service" including fees;

2. The negotiated contract including best and final offer with the successful firm will be presented to Commissioners' Court (including compliance with all requirements as well as insurances) for consideration and final approval.

3. If negotiations with the number one (1) ranked firm fail, the Purchasing Department will recommend to Commissioners' Court that negotiations cease with the number one (1) ranked firm and commence to negotiate with the next highest ranked firm.

EVALUATION CRITERIA
PROFESSIONAL ENGINEERING SERVICES POOL
RFQ No. 2016-002-02-17-YZV

EXHIBIT "B"

Selection Criteria	Points	Score
1. Professional Qualifications of Project Team (20 pts maximum)		
➢ Registered and licenses to practice in the State of Texas (i.e. certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract)	10	
➢ Provides information on proposed professional Team qualifications to perform various types of contracts	5	
➢ Team members identified in the organizational chart.	5	
Comments/Rationale For Points:		TOTAL _____
2. Experience of Project Team/Ability to Commit Resources (25 pts maximum)		
➢ Designate engineering staff members in an appendix form	5	
➢ Identifying the project composition, project leadership, reporting responsibilities	10	
➢ Experience of engineering staff to completely and efficiently perform the work.	10	
➢		
Comments/Rationale For Points:		TOTAL _____
3. Methodology/Experience/Availability of Project Manager (20 pts maximum)		
➢ Firm's approach to the methodology and management to the scope of services for the project(s).	5	
➢ Must be a Professional Engineer registered in the State of Texas and must be included in Appendix	5	
➢ Project Manager must have five (5) types of projects plus be 85-100 % involvement with technical development of project	10	
Comments/Rationale For Points:		TOTAL _____
4. Understanding of Project/Similar Projects (25 pts maximum)		
➢ Demonstrate and understanding of the scope of services	5	
➢ Address appropriate Federal/ State/ Local regulations and policies. Knowledge and experience of working with multiple entities, counties, cities, etc.	5	
➢ Identify information to be gathered or obtained/proposed approach to complete the scope	5	
➢ RFQ responsiveness. Response is clear, well organized, easy to evaluate, and appropriate to this RFQ.	5	
➢ Reference Information including contact persons and telephone numbers.	5	
Comments/Rationale For Points:		TOTAL _____
5. Familiarity with Applicable Rules and Regulations (10 pts maximum)		
➢ Indicate passed experience of the proposed Firm knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies	5	
➢ Must contain a narrative that outlines applicable regulations, guideline, standards, and policies	5	
Comments/Rationale For Points:		TOTAL _____
Total Score		

Firm/Participant's Name:_____

Evaluator: _____Department: _____

Project Name:_____Date:_____

PROCUREMENT FORM
ATTACHMENT "B"
HIDALGO COUNTY-PROFESSIONAL ENGINEERING SERVICES POOL
RFQ NO: 2016-002-02-17-YZV

Name and Address of Firm:	_____ _____ _____
Principals of Firm and Titles:	_____ _____ _____
Firm's Registration No.:	_____

Area of Specialization:

	Civil Engineering		Electrical Engineering
	Structural Engineering		Highway Engineering
	MEP Engineering (Mech/Elec/Plumb)		
	Mechanical Engineering		
	Environmental Engineering		

Local References (Rio Grande Valley) List Four (4) Only:

Reference #1: _____

Reference #2: _____

Reference #3: _____

Reference #4: _____

Recent Projects (Within Two [2] Years) List Four (4) Only:

Project #1: _____

Project #2: _____

Project #3: _____

Project #4: _____

Submitted By: _____

Signature: _____

Typed Name: _____

EXHIBIT "C"

Insurance Requirements
Professional Services
(i.e...Engineers, Architects, Appraisers, Surveyors & Other Professional Services)

The proposer awarded the contract shall furnish proof of insurance, which will also include any subcontractor that is subcontracted by the proposer in at least the following limits, to be in place prior to providing any services under this Contract and to continue at all times in force in effect during the term of this Contract:

1. Professional liability insurance policy with limits of at least One Million Dollars ($1,000,000) per occurrence, or limited to claims made, include at least a five (5) year extended reporting period.

2. A Five Hundred Thousand Dollars ($500,000.00) Comprehensive General Liability insurance policy providing additional coverage to all underlying liabilities of County.

3. Automobile liability insurance policy with limits of at least Three Hundred Thousand Dollars ($300,000.00) per person and Five Hundred Thousand Dollars ($500,000.00) per occurrence. Coverage should include injury to or death of persons and property damage claims with limits up to Five Hundred Thousand Dollars ($500,000.00) arising out of the services provided to County hereunder.

4. Uninsured/Underinsured motorist coverage in an amount equal to the bodily injury limits set forth immediately above;

5. Workers compensation insurance in amounts established by Texas law, unless the Bidder is specifically exempted from the Texas Workers Compensation Act, Texas Labor Code Chapter 401, et. seq.

Hidalgo County will only accept certificates of insurance on an Acord form (as attached hereto). Certificates of insurance naming County as an additional insured shall be submitted to County for approval prior to any services being performed by Contractor. Each policy of insurance required hereunder shall extend for a period equivalent to, or longer than the term of the Contract, and any insurer hereunder shall be required to give at least thirty (30) days written notice to the County prior to the cancellation of any such coverage on the termination date, or otherwise. This Contract shall be automatically suspended upon the cancellation, or other termination, of any required policy of insurance hereunder, and such suspension shall continue until evidence adequate replacement coverage is provided to County. If replacement coverage is not provided within thirty (30) days following suspension of the Contract, this Contract shall automatically terminate.

ACORD	**CERTIFICATE OF INSURANCE**	DATE (MM/DD/YY)

PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
	INSURERS AFFORDING COVERAGE
INSURED	INSURER A:
	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THER TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	**GENERAL LIABILITY** ☐ COMMERCIAL GENERAL LIABILITY ☐ ☐ CLAIMS MADE OCCUR ☐ OWNER'S & CONT. PROT ☐ OWNER'S PROTECTIVE LIABILITY GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY PROJECT ☐ LOC				EACH OCCURRENCE	$
					FIRE DAMAGE (Any one fire)	$
					MED (Any one person)	$
					PERS & ADV INJURY	$
					AL AGGREGATE	$
					ODUCTS – COMP/OP GG	$
B	**AUTOMOBILE LIABILITY** ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident)	$
					BODILY INJURY (Per person)	$
					BODILY INJURY (Per accident)	$
					PROPERTY DAMAGE (Per accident)	$
	GARAGE LIABILITY ☐ ANY AUTO				AUTO ONLY-EA ACCIDENT	$
					OTHER THAN AUTO ONLY EA ACC	$
					AGG	$
C	**EXCESS LIABILITY** ☐ ☐ OCCUR CLAIMS-MADE ☐ DEDUCTIBLE ☐ RETENTION $				EACH OCCURENCE	$
					AGGREGATE	$
						$
						$
						$
D	**WORKERS COMPENSATION AND EMPLOYER'S LIABILIT**				WC STATU- ☐ OTHER TORY LIMITS	
					E.L. EACH ACCIDENT	$
					E.L. DISEASE-EA EMPLOYEE	$
					E.L. DISEASE-POLICY LIMIT	$
	OTHER					

DESCRIPTION OF OPERATIONS / LOCATION / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

County of Hidalgo shall be named as additional insured on all Commercial General Liability policies.

CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER: _____ CANCELLATION
Hidalgo County **Attn: Purchasing Department** **2812 S Highway Bus. 281** **Edinburg, Texas 78539**	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BY CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL ***30*** DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE

SAMPLE

Insurance Requirement Acknowledgment

I _____ , authorized representative for _____ ,
Company/Vendor

hereby acknowledge receipt of the County's required insurance limits. Said requirements:

☐ will be acquired within 10 working days after notification from Purchasing Department of award of project by the Hidalgo County Commissioners' Court;

☐ will acquire additional amounts required to meet the County's requirements within 10 working days after notification from Purchasing Department of award of project by the Hidalgo County Commissioners' Court; currently carry the following

Professional Liability (Errors & Omissions): $ _____

Automobile Liability: $ _____ General Liability: $ _____

☐ have already been met, see attached copy of insurance certificate.

_____ _____
Authorized Representative Date

Notice to Proposer:

A certificate of insurance for the required insurance limits shall be provided to the Purchasing Department's Contract Managers in order to qualify for award and to execute a contract between your Company and the County.

Failure to provide Certificates of Insurance to the Purchasing Department's Contract Managers will cause the award to be rescinded and re-awarded to next qualified vendor. Certificates of Insurance will be monitored and verified on a **quarterly basis** to ensure coverage policy is in place. It is the Company's obligation to maintain the appropriate insurance coverage throughout the term of the contract.

THIS FORM MUST ACCOMPANY YOUR PACKET

PROJECT REQUIREMENTS ACKNOWLEDGMENT

This is to certify that I,_____ possess all of the **APPLICABLE**:

1. Licenses: _____
2. Bonds: _____
3. Certificates: _____
4. Permits: _____
5. Other: _____

necessary to carry out the required project. Furthermore, I am providing copies of the required documentation so that, if my company is awarded this project, I may be eligible to enter into a contract with Hidalgo County and proceed to complete the project in a timely manner.

*** Any licenses, bonds, certificates, permits, etc. which are required must be presented as part of the packet in order to expedite the evaluation process. Failure to provide said documentation will result in the disqualification of your proposal/qualification.**

_____ _____
Authorized Signature Date

_____
Company

_____
Address

_____
City, State, Zip

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

_____ _____

Signature of vendor doing business with the governmental entity Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

(Instructions for completing and filing this form are provided on the next page.)

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 Name of Local Government Officer

2 Office Held

3 Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code

4 Description of the nature and extent of each employment or other business relationship and each family relationship with vendor named in item 3.

5 List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 AFFIDAVIT

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____

Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____ , to certify which, witness my hand and seal of office.

_____

Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

Section 176.003 of the Local Government Code requires certain local government officers to file this form. A "local government officer" is defined as a member of the governing body of a local governmental entity; a director, superintendent, administrator, president, or other person designated as the executive officer of a local governmental entity; or an agent of a local governmental entity who exercises discretion in the planning, recommending, selecting, or contracting of a vendor. This form is required to be filed with the records administrator of the local governmental entity not later than 5 p.m. on the seventh business day after the date on which the officer becomes aware of the facts that require the filing of this statement.

A local government officer commits an offense if the officer knowingly violates Section 176.003, Local Government Code. An offense under this section is a misdemeanor.

Refer to chapter 176 of the Local Government Code for detailed information regarding the requirement to file this form.

INSTRUCTIONS FOR COMPLETING THIS FORM

The following numbers correspond to the numbered boxes on the other side.

1. Name of Local Government Officer. Enter the name of the local government officer filing this statement.

2. Office Held. Enter the name of the office held by the local government officer filing this statement.

3. Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code. Enter the name of the vendor described by Section 176.001(7), Local Government Code, if the vendor: a) has an employment or other business relationship with the local government officer or a family member of the officer as described by Section 176.003(a)(2)(A), Local Government Code; b) has given to the local government officer or a family member of the officer one or more gifts as described by Section 176.003(a)(2)(B), Local Government Code; or c) has a family relationship with the local government officer as defined by Section 176.001(2-a), Local Government Code.

4. Description of the nature and extent of each employment or other business relationship and each family relationship with vendor named in item 3. Describe the nature and extent of the employment or other business relationship the vendor has with the local government officer or a family member of the officer as described by Section 176.003(a)(2)(A), Local Government Code, and each family relationship the vendor has with the local government officer as defined by Section 176.001(2-a), Local Government Code.

5. List gifts accepted, if the aggregate value of the gifts accepted from vendor named in item 3 exceeds $100. List gifts accepted during the 12-month period (described by Section 176.003(a)(2)(B), Local Government Code) by the local government officer or family member of the officer from the vendor named in item 3 that in the aggregate exceed $100 in value.

6. Affidavit. Signature of local government officer.

Local Government Code § 176.001(2-a): “Family relationship” means a relationship between a person and another person within the third degree by consanguinity or the second degree by affinity, as those terms are defined by Subchapter B, Chapter 573, Government Code.

Local Government Code § 176.003(a)(2)(A):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

PROPOSER'S AFFIDAVIT
Exhibit "E"

PROPOSER'S AFFIDAVIT OF NON-COLLUSION NON-CONFILICT OF INTERST, AND ANTI-LOBBYING

STATE OF TEXAS
COUNTY OF HIDALGO

Affiant, _____, being first duly sworn, deposes that:

(1) Affiant does hereby state neither the Proposer nor any of the Proposer's officers, partners, owners, agents, representatives, employees, or parties in interest, has in any way colluded, conspired, agreed, directly or indirectly with any person, firm, corporation, or other proposer, or potential proposer, to provide any money or other valuable consideration for assistance in procuring or attempting to procure a contract or fix the prices in the attached proposed or the proposal of any other proposer, and further states that no such money or other reward will be hereinafter paid.

(2) Affiant further states they have neither recommended or suggested to Hidalgo County or nay of its officials or employees, any of the terms or provisions set forth in their Request for Proposal and subsequent agreement, except at a meeting open to all interested proposers, of which proper notice was given.

(3) Affiant, further states their officers, employees, or agents have not, and will not attempt to lobby, directly or indirectly, the Hidalgo County Commissioner's Court between proposal submission date and award by the Hidalgo County County Commissioner's Court.

(4) Affiant further states no officer, or stockholder of the Proposer is a member of the staff, or related to any employee of the Hidalgo County except as noted herein below:

Signature/Title: _____

Subscribed and sworn to before me this _____day of _____, 20___.

_____

Notary Public

My commission expires:_____, 20___.

HIDALGO COUNTY
PURCHASING DEPARTMENT
Proposer/Vendor Application

Complete in print or type. Please return this application to the Hidalgo County Purchasing Department
thru Facsimile: (956) 318-2629 or (956) 292-7612
in person or regular mail to:
Mailing/Postal Address: 2812 S. Business Hwy. 281
Physical Address: 2802 S. Business Hwy. 281
Edinburg, Texas 78539
or e-mail: purchasing@co.hidalgo.tx.us

Company Name: **Telephone No. ( )**

dba Name:

Legal Name:

Mailing Address: **Fax No. ( )**

Physical Address:

City, State, Zip **Tax I.D. No.**

Remit to Address : **City, State, Zip**

E-Mail Address:

Representative(s) Name(s) & Title(s)

Type of Organization (check one): _____ Individual _____ Partnership _____ Corporation _____Non-Profit
_____ LLC _____ Sole Proprietor _____ Other, Specify
State Identification No._____ (Please attached completed W-9 form with this application)
Federal Identification No. or (if individual) SS No.

State of Incorporation: _____ Date:_____ Other:

Type of Business (check one): _____ Manufacturer _____ Wholesaler _____ Retailer _____ Broker
_____ Distributor _____ Service Organization _____ Other, Specify

Name & Title of Person(s) Authorized to Sign Bids, Proposals, and/or Contracts:

Small and/or Disadvantaged Business Information (check application criteria)

Small Business:	**Disadvantaged Business (At Least 51% Ownership)**	
☐ Less than 125,000 annual gross receipt	☐ Black American	☐ Native American
☐ Less than 250,000 annual gross receipt	☐ Hispanic American	☐ Women
☐ Less than 499,000 annual gross receipt	☐ Asian Pacific American	☐ Other
☐ More than 500,000 annual gross receipt		

Have you been certified as a HUB or an MBE/WBE source?: ☐ Yes ☐ No

Indicate Certification No.(s):_____ or are Certificate(s) attached?: ☐ Yes ☐ No

What type of product(s) is/are solicited by your company?:

Would you like to be provided with specifications for procurements of such products?: ☐ Yes ☐ No

To Be Completed by the County: Rec'd by (Purchasing):_____ Date Rec'd by (Purchasing):

Date Forwarded Information to Auditor's Office:_____Entry Date: _____ Vendor No.:

(THIS PAGE MUST BE SUBMITTED WITH PROPOSAL)

HISTORICALLY UNDERUTILIZED BUSINESS (HUB) DECLARATION

The primary objective of the Hidalgo County HUB Program is to ensure Historically Underutilized Businesses receive a fair and equal opportunity for participation in the County's procurement process. This fact holds true for Services (Professional & Non-Professional), Commodities, and Construction contracts and any subcontracts thereto. The program strongly encourages Prime Contractors to provide subcontracting opportunities to Certified Hub Contractors/Vendors. Our goal for HUB contractor/vendor participation, as well as HUB subcontractor participation is 30%. To be considered as a "Certified HUB Contractor/Vendor" the contractor/vendor must have been certified by, and hold a current and valid certification with any of the three agencies listed below.

Have you been Certified as a HUB or an MBE/WBE source?: □Yes □ No

If yes, by whom?: □ Texas Building & Procurement Commission □ Other_____

Indicate Certification No(s).:_____ or Are Certificate(s) Attached?: □ Yes □ No

LIST OF CERTIFIED HUB SUBCONTRACTORS

(Attach additional pages if necessary)

What percentage of the Bid, RFP, or RFQ is to be subcontracted with Certified HUB sources?: _____%
(List HUB Subcontractor information below).

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): □Texas Building & Procurement Commission □other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): □Texas Building & Procurement Commission □other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): □Texas Building & Procurement Commission □other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

(THIS PAGE MUST BE SUBMITTED WITH PROPOSAL)

Form **W-9**
(Rev. January 2011)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type See **Specific Instructions** on page 2.

Name (as shown on your income tax return)

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification (required): ☐ Individual/sole proprietor ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)

Requester's name and address (optional)

City, state, and ZIP code

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

			–		–				

Employer identification number

		–							

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here **Signature of U.S. person** ▶ **Date** ▶

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,
- The U.S. grantor or other owner of a grantor trust and not the trust, and
- The U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person, do not use Form W-9. Instead, use the appropriate Form W-8 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity not subject to backup withholding, give the requester the appropriate completed Form W-8.

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS a percentage of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See the instructions below and the separate Instructions for the Requester of Form W-9.

Also see *Special rules for partnerships* on page 1.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Name

If you are an individual, you must generally enter the name shown on your income tax return. However, if you have changed your last name, for instance, due to marriage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

Sole proprietor. Enter your individual name as shown on your income tax return on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name/disregarded entity name" line.

Partnership, C Corporation, or S Corporation. Enter the entity's name on the "Name" line and any business, trade, or "doing business as (DBA) name" on the "Business name/disregarded entity name" line.

Disregarded entity. Enter the owner's name on the "Name" line. The name of the entity entered on the "Name" line should never be a disregarded entity. The name on the "Name" line must be the name shown on the income tax return on which the income will be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a domestic owner, the domestic owner's name is required to be provided on the "Name" line. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on the "Business name/disregarded entity name" line. If the owner of the disregarded entity is a foreign person, you must complete an appropriate Form W-8.

Note. Check the appropriate box for the federal tax classification of the person whose name is entered on the "Name" line (Individual/sole proprietor, Partnership, C Corporation, S Corporation, Trust/estate).

Limited Liability Company (LLC). If the person identified on the "Name" line is an LLC, check the "Limited liability company" box only and enter the appropriate code for the tax classification in the space provided. If you are an LLC that is treated as a partnership for federal tax purposes, enter "P" for partnership. If you are an LLC that has filed a Form 8832 or a Form 2553 to be taxed as a corporation, enter "C" for C corporation or "S" for S corporation. If you are an LLC that is disregarded as an entity separate from its owner under Regulation section 301.7701-3 (except for employment and excise tax), do not check the LLC box unless the owner of the LLC (required to be identified on the "Name" line) is another LLC that is not disregarded for federal tax purposes. If the LLC is disregarded as an entity separate from its owner, enter the appropriate tax classification of the owner identified on the "Name" line.

Other entities. Enter your business name as shown on required federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name/ disregarded entity name" line.

Exempt Payee

If you are exempt from backup withholding, enter your name as described above and check the appropriate box for your status, then check the "Exempt payee" box in the line following the "Business name/ disregarded entity name," sign and date the form.

Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends.

Note. If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding.

The following payees are exempt from backup withholding:

1. An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2),

2. The United States or any of its agencies or instrumentalities,

3. A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities,

4. A foreign government or any of its political subdivisions, agencies, or instrumentalities, or

5. An international organization or any of its agencies or instrumentalities.

Other payees that may be exempt from backup withholding include:

6. A corporation,

7. A foreign central bank of issue,

8. A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States,

9. A futures commission merchant registered with the Commodity Futures Trading Commission,

10. A real estate investment trust,

11. An entity registered at all times during the tax year under the Investment Company Act of 1940,

12. A common trust fund operated by a bank under section 584(a),

13. A financial institution,

14. A middleman known in the investment community as a nominee or custodian, or

15. A trust exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 15.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 9
Broker transactions	Exempt payees 1 through 5 and 7 through 13. Also, C corporations.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 5
Payments over $600 required to be reported and direct sales over $5,000 [1]	Generally, exempt payees 1 through 7 [2]

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney, and payments for services paid by a federal executive agency.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on page 2), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local Social Security Administration office or get this form online at *www.ssa.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: *A disregarded domestic entity that has a foreign owner must use the appropriate Form W-8.*

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, below, and items 4 and 5 on page 4 indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on the "Name" line must sign. Exempt payees, see *Exempt Payee* on page 3.

Signature requirements. Complete the certification as indicated in items 1 through 3, below, and items 4 and 5 on page 4.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account [1]
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor [2]
4. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee [1]
b. So-called trust account that is not a legal or valid trust under state law	The actual owner [1]
5. Sole proprietorship or disregarded entity owned by an individual	The owner [3]
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulation section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity [4]
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulation section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or "DBA" name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 1.

***Note.** Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, social security number (SSN), or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov.* You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: *spam@uce.gov* or contact them at *www.ftc.gov/idtheft* or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

Certification
Regarding Debarment, Suspension Ineligibility

As is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 76, Government-wide Debarment and Suspension, in the applicant certifies, to the best of his or her knowledge and belief, that both it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;

b. Have not within a three-year period preceding this bid/proposal and/or application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction, violation of federal or state antitrust statutes or commission of embezzlement, theft, theory, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a government entity with commission of any of the offenses enumerated herein; and

d. Have not within a three-year period preceding this bid/proposal and/or application had one or more public transactions terminated of cause or default.

Signature:_____

Print Name:_____

Title:_____

Telephone Number:_____

Date:_____

If the proposer is unable to certify to all of the statements in this Certification, such proposer should attach an explanation to this proposal.

HIDALGO COUNTY
(Including all funding sources, programs, and entities)
REQUEST FOR QUALIFICATIONS
PROFESSIONAL ENGINEERING SERVICES POOL

RFQ No.: 2016-002-02-17-YZV

RFQ SUBMITTAL CHECK LIST

All forms listed below must be included in the RFQ response.

Indicate with a check mark (✓) the Forms completed and included in this response:

_____ Page 9 of Legal Notice

_____ Attachment "B" –Procurement Form –Areas of Specialization

_____ Exhibit "C" -Acknowledgement forms (pages 3 and 4)

_____ Exhibit "D-1" -CIQ Form -Copy of County Clerk File Recording fee receipt.

_____

_____ Exhibit "D-2"-CIS Form

_____ Exhibit "E" –Proposers Affidavit

_____ Vendor Bidder Application and IRS form W-9

_____ Certification Regarding Debarment

_____ One Original, 3 Copies, and 8 CD's containing a complete copy of Response.

EXHIBIT A

-SCOPE OF SERVICES TO BE PROVIDED BY THE OWNER

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

General:

The Owner will provide to the Engineer the following:

1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.
2) Payment for work performed by the Engineer and accepted by the Owner in accordance with Article 3 of this Agreement.
3) Assistance to the Engineer, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Engineer cannot easily obtain.
4) Provide any available relevant data the Owner may have on file concerning the projects.
5) Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed upon work schedule prepared in accordance with Exhibit "A" attached to this Agreement.
6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.

EXHIBIT "B"

Generalized Services to be provided by the Engineer

A. BASIC ENGINEERING SERVICES

ROADWAY DESIGN CONTROLS

1) Develop Typical Sections- No pavement design will be completed as part of the scope of work. Pavement section will be based on directive from Hidalgo County Pct. No. 1
2) Prepare plan and profile sheets as required for the reconstruction.
3) Develop plan and profiles for inclusion in sheets.
4) Detuning roadway quantities and prepare quantity summary sheet.

MISCELLANEOUS (ROADWAY)

1) Develop Miscellaneous Roadway Details.
2) Prepare Title Sheet and Index sheets.
3) Calculate project quantities and prepare quantity summary sheet.
4) Prepare general notes.
5) Prepare list of Standard Drawing to be included in the plans.
6) Upon completion of the review of the final plans by Hidalgo County Precinct. No. 1, the ENGINEER shall assemble and furnish signed original (11" x 17") drawings which shall include all applicable standards. The Engineer may sign/seal plans manually or include an electronic signature/seal.
7) Coordinate with Pct. 1 and other agencies as necessary.

SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION

1) Signing and Pavement Markings are to be shown on roadway P&P sheets as necessary.

CONSTRUCTION SUPPORT

1) Prepare Bid Documents
2) Attend and Coordinate Pre-bid Conference
3) Evaluate Bids
4) Make Award Recommendation
5) Assist County with preparation of Contract Documents
6) Attend Pre-Construction Conference upon request by County
7) Respond to Request for Information (RFI) from Contractor
8) Review Pay Requests
9) Preparation of Change Orders
10) Final Site Visit
11) Record Drawings

B. FIELD DESIGN SURVEY SERVICES

FIELD SURVEYING

1) Topographic survey of entire project length including:
   a) Topography of existing roadway and ditch within existing apparent ROW.
   b) Topography shall include any existing drainage crossings.
   c) Include flow lines, size and direction of drainage channels/structures
   d) Include utilities
   e) Perform one-call (Dig Tess) and identify and locate utilities (within Limits of R.O.W) as flagged/marked by utility companies
   f) Include inverts on sanitary sewer, measure downs to top of keys on water and gas mains
   g) Establish x,y, and z coordinates of power poles, manholes and valves of various utilities, flow lines of existing sanitary sewer and storm sewer lines, and subsequent utility ties of facilities exposed by others. Surveyor to survey nearest manhole/valve invert outside project limits.
   h) Establish 2 benchmarks for project control.

C. ADDITIONAL SERVICES NOT INCLUDED AS PART OF THIS PROJECT

GEOTECHNICAL SERVICES

1) Pavement section design or testing prior to PS&E development
   a) Material testing during construction

EXHIBIT C
-WORK SCHEDULE

Hidalgo CountyPrecinct No.1Mile 1.5 West, Jesus Flores Road,Englemen Road, Las Cumbres Drive and Mile 20 North

Engineering Schedule Summary	Duration Days	***Weeks***
Survey	7	
100% Design & Submittal	24	
Specifications	7	
Advertise/Pre-Bid/Bid Opening	21	
Bid Tabulation/Award Contract	14	
Contract Prep/Pre-Construction	28	
Construction	60	
Closeout Completion	15	

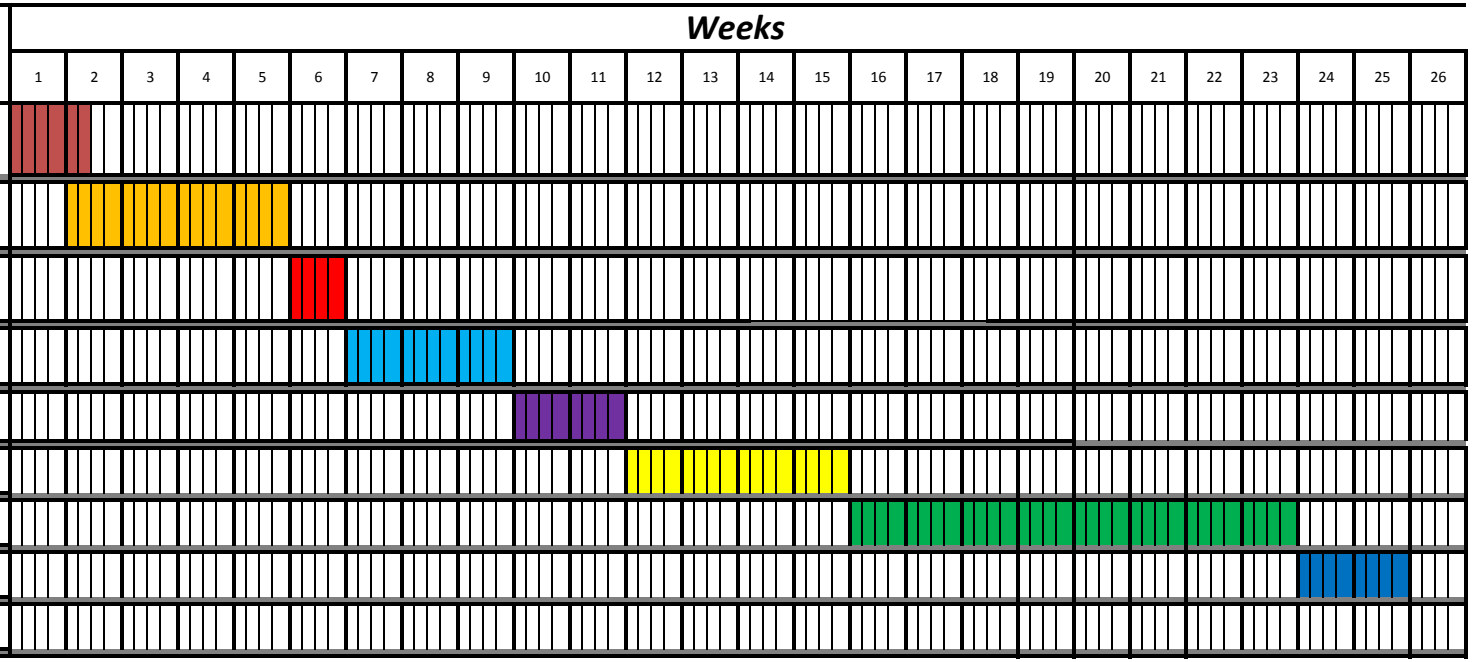

EXHIBIT D

-ENGINEER'S CONTRACT RATES

MILE 1.5 WEST, JESUS FLORES RD., ENGELMEN RD., LAS CUMBRES DRIVE & MILE 20 WEST IN HIDALGO COUNTY PRECINCT No. 1

Exhibit D

LABOR

JOB DESCRIPTION	CONTRACT RATE
Engineering	
Project Manager II	$140.00
Engineer IV	$120.00
Survey Crew	$135.00
Survey Technician	$82.00
Survey CAD Technician	$72.00
Inspector	$72.00
CAD Technician IV	$78.00
CAD Technician III	$42.50
Administrative/Clerical	$38.00

DIRECT EXPENSES:***

Mileage	$Current GSA Travel Rate/Mi.
Car Rental	$At Cost
Lodging (in State)	$Current GSA Per Diem Rate
Meals	$Current GSA Per Diem Rate
Air Travel	At Cost
Overnight Carrier Cost	$40/letter
GPS Equipment	$500/day
Copies (8 ½ x 11)	$0.10/ea
Color Copies (8 ½ x 11)	$1.00/ea.
Copies (11 x 17)	$0.20/ea.
Color Copies (11 x 17)	$2.00/ea.
Mylar (11 x 17) Plots	$3.50/ea.
Color Mylar (11 x 17) Plots	$7.00/ea.
Bond Plots	$1.00/sq. ft.
Color Bond Plots	$2.50/sq. ft.
Mylar Plots	$2.50/sq. ft.
Color Mylar Plots	$5.00/sq. ft.
Photo Quality Color Plots	$12.00/sq. ft.

These are the anticipated non-labor rates to be used to negotiate purchase orders for special or excluded services, and/or additional work; and may be re-negotiated on a yearly basis. Other non-labor rates may be determined at time of negotiation at the rates authorized by Hidalgo County for County Official

EXHIBIT D-1
-ESTIMATED PROJECT FEE SCHEDULE

HIDALGO COUNTY
PRECINCT No.1
MILE 1.5 WEST, JESUS FLORES ROAD, ENGELMEN ROAD, CUMBRES DRIVE MILE 20 NORTH STREET/ROAD IMPROVEMENTS

COMMON ITEMS

1.1	Traffic control sign and seal by PE	Ls	1	$ 2,500.00	$ 2,500.00
1.2	Inst. Amd Maintenance barricades, signs traffic handling	LS	1	$ 4,000.00	$ 4,000.00
				BASE TOTAL	**$ 6,500.00**

MILE 1.5 WEST

1	Excavation (Pavement and 4" Caliche)	CY	2607	$ 3.00	$ 7,821.00
2	6" Subgrade preparation with 1.5% Lime by weight	SY	16426	$ 3.00	$ 49,278.00
3	Lime	TNS	45	$ 130.00	$ 5,850.00
4	6" New Caliche Flexible Base (Compacted in place)	SY	16426	$ 4.80	$ 78,844.80
5	Prime Coat (MC-30)	Gal	2933	$ 6.00	$ 17,598.00
6	2" Asphalt Ty "D"	TNS	1605	$ 95.00	$ 152,475.00
7	Regrade Roadside Ditch	LF	10260	$ 3.00	$ 30,780.00
				BASE TOTAL	$ 342,646.80

JESUS FLORES RD

1	Excavation (Pavement and 4" Caliche)	CY	296	$ 3.00	$ 888.00
2	6" Subgrade preparation with 1.5% Lime by weight	SY	1867	$ 3.00	$ 5,601.00
3	Lime	TNS	5	$ 130.00	$ 650.00
4	6" New Caliche Flexible Base (Compacted in place)	SY	1867	$ 4.80	$ 8,961.60
5	Prime Coat (MC-30)	Gal	333	$ 6.00	$ 1,998.00
6	2" Asphalt Ty "D"	TNS	182.4	$ 95.00	$ 17,328.00
7	Regrade Roadside Ditch	LF	1200	$ 3.00	$ 3,600.00
				TOTAL	$ 39,026.60

ENGELMEN ROAD

1	Excavation	CY	52	$ 3.00	$ 156.00
2	6" New Caliche Flexible Base (Compacted in place)	SY	7480	$ 4.80	$ 35,904.00
3	Regrade Roadside Ditch	LF	5280	$ 3.00	$ 15,840.00
				TOTAL	$ 51,900.00

LAS CUMBRES DRIVE

1	Excavation (Pavement and 4" Caliche)	CY	426	$ 3.00	$ 1,278.00
2	6" Subgrade preparation with 1.5% Lime by weight	SY	2667	$ 3.00	$ 8,001.00
3	Lime	TNS	7.33	$ 130.00	$ 952.90
4	6" New Caliche Flexible Base (Compacted in place)	SY	2667	$ 4.80	$ 12,801.60
5	Prime Coat (MC-30)	Gal	483	$ 6.00	$ 2,898.00
6	2" Asphalt Ty "D"	TNS	266	$ 95.00	$ 25,270.00
7	Regrade Roadside Ditch	LF	1500	$ 3.00	$ 4,500.00
				TOTAL	$ 55,701.50

MILE 20 N

1	Excavation	CY	52	$ 3.00	$ 156.00
2	6" New Caliche Flexible Base (Compacted in place)	SY	10472	$ 4.80	$ 50,265.60
3	Regrade Roadside Ditch	LF	7392	$ 3.00	$ 22,176.00
				TOTAL	$ 72,597.60

	COMMON ITEMS				**$ 6,500.00**
	MILE 1.5 WEST				**$ 342,646.80**
	JESUS FLORES ROAD				**$ 39,026.60**
	ENGELMEN ROAD				**$ 51,900.00**
	LAS CUMBRES DRIVE				**$ 55,701.50**
	MILE 20 N				**$ 72,597.60**
				GRAND TOTAL	**$ 568,372.50**
				8.5% Eng Fees	**$ 48,311.66**

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EXHIBIT E
-WORK AUTHORIZATION

HIDALGO COUNTY
Professional Engineering Services
Agreement# C-16-257-09-13

WORK AUTHORIZATION NO. ___

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, _____ professional engineers of_____ Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK
The purpose of this Work Authorization is for the "engineering services" to provide_____.

The scope of services to be provided by the **Owner** is identified in **EXHIBIT "A" – Scope of Services to be provided by the Owner** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **EXHIBIT "B" – Scope of Services to be provided by the Engineer** attached hereto.

PART 2. ESTIMATED COST
The estimated cost for services under this Work Authorization is _____.This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D".**

PART 3. PAYMENT
Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/Section _____ of the Agreement.

PART 4. FUNDING
This Work Authorization No.__ shall be funded through funding source:
Account No. _-_ _ _ _-_ _ _-_ _-_ _ _-_ _ _-_-_ _ _
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE
This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate **upon completion of scopes of the work authorization**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS
This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION
Acknowledgement and Confirmation by **Hidalgo County Precinct No.1,** as to content and detail of this **Work Authorization No. ___.**

HIDALGO COUNTY
COMMISSIONER PRECINCT No. 1:

By: _____
A.C. Cuellar, Commissioner

PART 8. ACCEPTANCE AND APPROVAL
This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____(cc approval date)_____ as indicated below and effective as of _____ day of _____, 201__.

THE ENGINEER:
JIMENEZ ENGINEERING SOLUTIONS
d/b/a **INTERNATIONAL CONSULTING ENGINEERS**

By:_____
Luis J. Nava, P.E.

THE OWNER:
HIDALGO COUNTY

By:_____
Ramon Garcia, County Judge

ATTEST:

By: _____
Arturo Guajardo Jr., County Clerk

EXHIBIT F
-SUPPLEMENTAL AGREEMENT FORM

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

SUPPLEMENTAL AGREEMENT NO. _____
TO AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

THIS SUPPLEMENTAL AGREEMENT is made pursuant to the terms and conditions of paragraph 5 of the Agreement made by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and _____**,** Professional Engineers of, _____, Texas, hereinafter called the "**Engineer**".

WITNESSETH

WHEREAS, the **Owner** and the **Engineer** executed the **Agreement** on the ___ day of _____ **20**___ concerning Engineering for_____ hereinafter referred to as the ("**Project**"); and,

WHEREAS, Paragraph ___ of the **Agreement**, (paragraph title), establishes _____; and,

WHEREAS, it has become necessary to amend the Agreement to _____

A. AGREEMENT

NOW THEREFORE, premises considered, the **Owner** and the **Engineer** agree that said **Agreement** is amended as follows:

I. Paragraph ___ of the **Agreement**, (paragraph title), is revised to

_____
_____
_____
_____
_____
_____
_____

All other provisions are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the Engineer and the Owner have caused this Supplemental Agreement to the Agreement for Professional Services to be executed as of the _____ day of _____, 20__.

THE ENGINEER:

BY:_____

Address for Giving Notices:

_____

_____

THE OWNER:
HIDALGO COUNTY

BY:_____
Ramon Garcia, County Judge

LIST OF ATTACHMENTS

(as required)

EXHIBIT G

-CERTIFICATE OF INSURANCE (HIDALGO COUNTY)

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/8/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Higginbotham Insurance Agency, Inc. dba Swantner & Gordon Insurance Agency, LLC PO Box 870 Corpus Christi TX 78403-0870	**CONTACT NAME:** Karen Silkwood **PHONE (A/C, No, Ext):** 361-883-1711 **FAX (A/C, No):** 361-844-0101 **E-MAIL ADDRESS:** ksilkwood@higginbotham.net
INSURED JIMEN3 Jimenez Engineering Solutions LLC DBA International Consulting Engineers 555 N. Carancahua, Ste 860 Corpus Christi TX 78401	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** **INSURER A :** Sentinel Insurance Company, LTD — 11000 **INSURER B :** Certain Underwriters @ Lloyds — 15792 **INSURER C :** Gemini Insurance Company — 10833 **INSURER D :** Indemnity Insurance Co. of North — 43575 **INSURER E :** Texas Mutual Insurance Company — 22945 **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1218121215 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	X **COMMERCIAL GENERAL LIABILITY** [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			VIGP017200	11/11/2015	11/11/2016	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$1,000,000 $50,000 $5,000 $1,000,000 $2,000,000 $2,000,000 $
A	**AUTOMOBILE LIABILITY** X ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS			65UECPB1212	3/27/2016	3/27/2017	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$1,000,000 $ $ $ $
D	X **UMBRELLA LIAB** [ ] OCCUR **EXCESS LIAB** [ ] CLAIMS-MADE DED X RETENTION $ 10,000			N10908371001	4/6/2016	11/11/2016	EACH OCCURRENCE AGGREGATE $	$5,000,000 $5,000,000 $
E	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		TSF0001304416	4/11/2016	4/11/2017	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
B	Professional Liability E&O			B0621PJIME000215	12/4/2015	12/4/2016	Each Occurrence	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

See Attached...

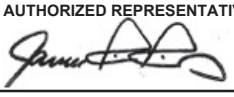
CERTIFICATE HOLDER

Hidalgo County
2812 South Business Hwy. 281
Edinburg TX 78539

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



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AGENCY CUSTOMER ID: JIMEN3

LOC #:

ADDITIONAL REMARKS SCHEDULE

AGENCY	NAMED INSURED
Higginbotham Insurance Agency, Inc.	Jimenez Engineering Solutions LLC DBA International Consulting Engineers 555 N. Carancahua, Ste 860 Corpus Christi TX 78401
POLICY NUMBER	
CARRIER / NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

General Liability policy includes a blanket automatic additional insured endorsement that provides additional insured status to the certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status. Title Form #CG2010 0413

General Liability policy includes a blanket automatic waiver of subrogation endorsement that provides this status to the certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status. Title Form #CG2404 0509

General Liability policy includes a blanket automatic primary and non contributory endorsement that provides this status to the certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status. Title Form #CG2001 0413

General Liability policy includes a Products & Completed Operation provision only when there is a written contract between the insured and certificate holder that requires such provision. Additional Insured-Owners, Lessees or Contractors-Completed Operations CG2037 0413

General Liability policy includes a endorsement providing that 30 days notice of cancellation will be furnished to the certificate holder except 10 days notice of nonpayment of premium. Notice Of Cancellation to Designated Entities VE0139 0213

Auto policy includes a blanket automatic additional insured endorsement that provides additional insured status to the certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status. Title Form #HA9916 0312

Auto policy includes a blanket automatic waiver of subrogation endorsement that provides this status to the certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status. Title Form #HA9916 0312

Workers Compensation includes a blanket automatic waiver of subrogation endorsement that provides this status to the certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status. "Texas Wiaver of our Right to Recover from others Endrosement WC420 0304B"

Professional liability $1,000,000 limits from 12/04/15-04/06/2016

Excess Liability follows form of General Liability, Auto Liability and Employers Liability per policy form #XC-41787 (01/14)

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CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-107984

Date Filed:
09/05/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
International Consulting Engineers
Edinburg, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Hidalgo County Precinct No. 1

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
C-16-257-09-13
Professional engineering services required for the projects specific "Mile 1 ½ West, J. Flores, Englemen, Las Cumbres & Mile 20 North".

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Jimenez, Jesus	Edinburg, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

NOTARY PUBLIC STATE OF TEXAS
ANNA M. JIMENEZ
My Commission Expires
July 06, 2018

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Jesus J. Jimenez, this the 5th day of August, 20 16, to certify which, witness my hand and seal of office.

Signature of officer administering oath | Anna M. Jimenez — Printed name of officer administering oath | Office Manager — Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-107984

Date Filed:
09/05/2016

Date Acknowledged:
09/07/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

International Consulting Engineers
Edinburg, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo County Precinct No. 1

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

C-16-257-09-13
Professional engineering services required for the projects specific “Mile 1 ½ West, J. Flores, Englemen, Las Cumbres & Mile 20 North”.

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		Controlling	Intermediary
Jimenez, Jesus	Edinburg, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

AI-56302 **Purchasing Department** **12. B. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Heidi Ortiz, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

Authority to advertise with approval of preliminary plans and specifications developed by the architect for Renovation of Palmer Pavilion + Les Gilmore Kitchen Upgrades. In the event of no bids received or rejection of bids, approval to re-advertise.

BACKGROUND

Precinct 2:
Plans and specifications developed by Sam Garcia Architects - RFB No. 2016-342-10-05-HGO
Proposed schedule of events:
Advertisements: 9/17/16 & 9/24/16
Pre-Bid Conference: 9/26/16
Bid Opening: 10/05/16

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1350-452-00-122-121-0-730

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

FISCAL YEAR: 2016 **ACCT. #:** 6-1345-452-00-122-121-0-730

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

Attachments

backup
backup
A101
A201

Form Review

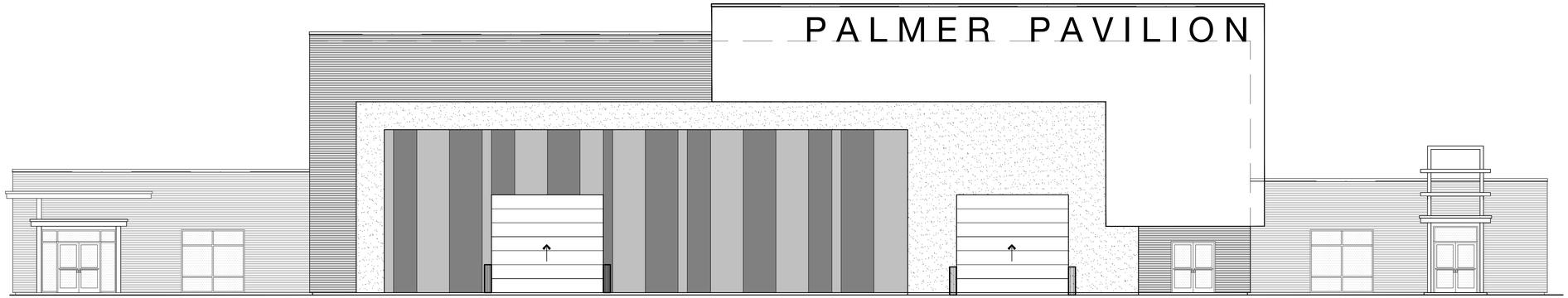
Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 02:31 PM
Glinda Pacheco	Glinda Pacheco	09/09/2016 03:12 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Heidi Ortiz Started On: 09/09/2016 09:40 AM

Final Approval Date: 09/09/2016

PALMER PAVILION
RENOVATION

301 E. HACKBERRY AVE. McALLEN, TEXAS 78501



HIDALGO COUNTY
PRECINCT 2
300 W. HALL ACRES, SUITE G
PHARR, TX 78577

DESIGN CONSULTANT TEAM

ARCHITECT

SAM GARCIA ARCHITECT
200 S. 10th Street | Suite 1602
McAllen, TX. 78501
(956) 631-8327
SAM GARCIA, AIA

CIVIL ENGINEER

MGE ENGINEERING
400 NOLANA SUITE N2
McAllen, TX. 78504
(956) 687-9421
MARIANO GARCIA, PE.

STRUCTURAL ENGINEER

CHANIN ENGINEERING
400 NOLANA SUITE N2
McAllen, TX. 78504
(956) 687-9421
MIGUEL CHANIN, PE.

MEP ENGINEER

MEP SOLUTIONS ENGINEERING
600 E. BEAUMONT AVE | STE. 2
McAllen, TX. 78501
(956) 664-2727
JAVIER PENA, PE.

DRAWING INDEX:

CS	COVER SHEET
GN1	GENERAL NOTES
ADA1	ADA/TAS GUIDELINES (1 of 2)
ADA2	ADA/TAS GUIDELINES (2 of 2)
AS1.0	EXISTING / DEMO SITE PLAN
AS1.1	NEW SITE PLAN

CIVIL

C1.0	GENERAL NOTES
C2.0	EXISTING CONDITION
C3.0	SITE PLAN
C4.0	UTILITY LAYOUT
C4.1	UTILITY DETAILS
C5.0	PAVING & GRADING
C5.1	PAVING & GRADING DETAILS
C6.0	EROSION & SEDIMENT CONTROL
C6.1	EROSION & SEDIMENT CONTROL DETAILS

STRUCTURAL

S1.01	GENERAL NOTES
S1.02	GENERAL NOTES
S1.03	EXCAVATION PLAN
S1.04	ROOF UPLIFT PLAN
S2.01	TYPICAL DETAILS
S2.02	TYPICAL DETAILS
S2.03	TYPICAL DETAILS
S2.04	TYPICAL DETAILS
S3.01	FOUNDATION PLAN
S4.01	WALL LAYOUT PLAN
S5.01	ROOF FRAMING PLAN
S6.01	DETAILS
S6.02	FRAMING DETAILS
S6.03	FRAMING DETAILS
S6.04	DETAILS

ARCHITECTURAL

AD1.01	EXISTING/DEMO KITCHEN FLOOR PLAN
AD1.02	EXISTING/DEMO GYMNASIUM FLOOR PLAN
A1.01	NEW KITCHEN FLOOR PLAN
A1.02	NEW GYMNASIUM FLOOR PLAN-DIMENSIONED
A1.03	NEW GYMNASIUM FLOOR PLAN-ANNOTATED
A1.04	REFLECTED CEILING PLAN
A1.05	ROOF PLAN
A2.01	EXTERIOR ELEVATIONS
A2.02	EXTERIOR ELEVATIONS
A3.01	BUILDING SECTIONS
A4.01	WALL SECTIONS
A4.02	WALL SECTIONS
A4.03	WALL TYPES & FLOOR PLAN DETAILS
A5.01	DOOR & WINDOW DETAILS
A5.02	DOOR & WINDOW DETAILS
A5.03	DOOR & WINDOW DETAILS
A5.04	DOOR & WINDOW DETAILS
A6.01	INTERIOR ELEVATIONS
A6.02	INTERIOR ELEVATIONS
A7.01	SCHEDULES & TYPES

MECHANICAL, ELECTRICAL & PLUMBING

DM1.01	DEMO MECHANICAL FLOOR PLAN (GYM)
M1.01	MECHANICAL FLOOR PLAN (GYM)
M1.02	MECHANICAL FLOOR PLAN (KITCHEN)
M2.01	GENERAL NOTES & SCHEDULES
M3.01	MECHANICAL DETAILS
M3.02	MECHANICAL DETAILS
DE1.00	DEMO ELECTRICAL SITE PLAN
DE1.01	DEMO ELECTRICAL LIGHTING FLOOR PLAN (GYM)
DE1.02	DEMO ELECTRICAL POWER FLOOR PLAN (GYM)
E1.00	ELECTRICAL SITE PLAN
E1.01	ELECTRICAL LIGHTING FLOOR PLAN
E1.02	ELECTRICAL POWER FLOOR PLAN
E2.01	ELECTRICAL LEGEND
E3.01	ELECTRICAL SCHEDULES
E4.01	ELECTRICAL PANEL SCHEDULES
E5.01	ELECTRICAL DETAILS
DP1.01	DEMO PLUMBING FLOOR PLAN (GYM)
DP1.02	DEMO PLUMBING FLOOR PLAN (KITCHEN)
P1.00	PLUMBING SITE PLAN
P1.01	PLUMBING SEWER FLOOR PLAN
P1.02	PLUMBING HW / CW FLOOR PLAN
P1.03	PLUMBING FLOOR PLAN (KITCHEN)
P2.01	PLUMBING FIXTURE SCHEDULE & DETAILS
P2.02	PLUMBING DETAILS & LEGEND

TOTAL SHEET COUNT: 74 PAGES

PROJECT LOCATION

SEPTEMBER 12, 2016

SAM GARCIA ARCHITECT
200 S. 10th Street | Suite 1602
McAllen, TX 78501
(956) 212-4930
info@samgarciaarchitect.com

PALMER PAVILION RENOVATION
USA
Mc ALLEN, TEXAS

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JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	
CHECKED BY:	SRG
COVER SHEET	

CS

PROJECT DESCRIPTION

HIDALGO COUNTY - PALMER PAVILION &
LES GILMORE KITCHEN RENOVATION:

DEMOLITION OF EXISTING SINGLE STORY PRE-ENGINEERED METAL BUILDING AND RECONSTRUCTION OF SINGLE STORY PRE-ENGINEERED METAL BUILDING TO BE USED AS PRIMARILY AS A GYMNASIUM AND SENIOR CITIZEN ACTIVITY CENTER.

RENOVATION OF EXISTING COMMUNAL BBQ KITCHEN TO BETTER FACILITATE THE USE OF THE KITCHEN.

SITEWORK ASSOCIATED WITH IMPROVING THE LANDSCAPED AREA AT COUNTY PROPERTY.

PARKING REQUIREMENTS

AS PER CITY OF McALLEN REQUIREMENTS, SEE SHEET AS1.1 FOR PARKING CALCULATIONS.

CODE ANALYSIS:

APPLICABLE BUILDING CODE: **2012 INTERNATIONAL BUILDING CODE**

1. USE AND OCCUPANCY CLASSIFICATION
   A. SECTION 304 - BUSINESS GROUP B

2. GENERAL BUILDING HEIGHTS AND AREAS
   A. TABLE 503 - ALLOWABLE HT. AND BUILDING AREAS (CONST TYPE III-B)
      I. B (55 FT. / 3 STORIES / 19,000 SQ. FT.)

   B. SECTION 506.3 - AUTOMATIC SPRINKLER SYSTEM INCREASE FOR BUILDINGS WITH NO MORE THAN 1 STORY ABOVE GRADE SHALL BE AN ADDITIONAL 300%.
      I. B 19,000 +(19,000 x 3) = 76,000 SQ. FT.

3. TYPE OF CONSTRUCTION
   A. SECTION 602 - CONSTRUCTION CLASSIFICATION: TYPE III-B

4. MEANS OF EGRESS
   A. TABLE 1004.1.2 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT
      I. BUSINESS AREAS: 100 GROSS

      (2,590/100) = 26 OCCUPANTS

   B. SECTION 1005 - MEANS OF EGRESS SIZING
      I. SECTION 1005.3.2 - CAPACITY OF MEANS OF EGRESS IS .2" PER OCCUPANT = (26 x .2) = 5.2 INCHES. THEREFORE ONE (1) 36" WIDE DOORS WILL COMPLY

   C. TABLE 1016.2 - EXIT ACCESS TRAVEL DISTANCE
      I. B OCCUPANCIES (NON-SPRINKLERED): 200' MAX - BUILDING COMPLIES

5. PLUMBING SYSTEMS
   A. TABLE 2902.1 - MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES*

OCCUP.	WATER CLOSETS MALE	WATER CLOSETS FEMALE	LAVATORIES MALE	LAVATORIES FEMALE	DRINKING FOUNTAINS	OTHER
B	1 PER 25 FOR THE 1ST 50 AND 1 PER 50 FOR THE REMAINDER EXCEDING 50.		1 PER 40 FOR THE 1ST 80 AND 1 PER 80 FOR THE REMAINDER EXCEDING 80		1 PER 100	1 SERVICE SINK

ONE (1) WATER CLOSETS PER GENDER;
ONE (1) LAVATORIES PER GENDER;
ONE (1) DRINKING FOUNTAINS;
ONE (1) SERVICE SINK

GENERAL NOTES

1. THE CONTRACTOR SHALL PROTECT AREA AND NEW OR EXISTING MATERIALS AND FINISHES FROM DAMAGE, WHICH MAY OCCUR FROM CONSTRUCTION, TRANSPORT, DUST, WATER, ETC. ANS SHALL PROVIDE AND MAINTAIN TEMPORARY BARRICADES, CLOSURE WALLS, ETC., AS REQUIRED, TO PROTECT THE PUBLIC/ADJACENT AREAS DURING THE PERIOD OF CONSTRUCTION.

2. DAMAGE TO NEW AND EXISTING MATERIALS, FINISHES, STRUCTURES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT THE EXPENSE OF THE GENERAL CONTRACTOR.

3. MATERIALS SPECIFIED BY THEIR BRAND NAMES ARE TO ESTABLISH STANDARD OF QUALITY AND PERFORMANCE. ANY REQUEST FOR SUBSTITUTION SHALL BE SUBMITTED TO ARCHITECT FOR REVIEW FOR EQUAL QUALITY AND PERFORMANCE AND SHALL NOT BE PURCHASED OR INSTALLED WITHOUT HIS WRITTEN APPROVAL.

4. WORK LISTED, SHOWN OR IMPLIED ON ANY CONSTRUCTION DOCUMENTS SHALL BE SUPPLIED AND INSTALLED BY THE GENERAL CONTRACTOR, EXCEPT WHERE OTHERWISE NOTED. THE GENERAL CONTRACTOR SHALL CLOSELY COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS OR VENDORS TO ASSURE THAT ALL SCHEDULES ARE MET AND THAT ALL WORK IS DONE IN CONFORMANCE TO MANUFACTURER'S REQUIREMENTS.

5. THE CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS ON THE JOB SITE DURNING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES AND SHALL PROVIDE ALL SUBCONTRACTORS WITH CURRENT CONSTRUCTION DOCUMENTS AS REQUIRED.

6. THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND WASTE MATERIALS ON A REGULAR BASIS AND SHALL EXERCISE STRICT CONTROL OVER JOB CLEANING TO PREVENT ANY DIR, DEBRIS, OR DUST FROM AFFECTING, IN ANY WAY, FINISHED AREAS IN OR OUTSIDE JOBSITE. THE BUILDING REFUSE FACILITIES SHALL NOT BE USED FOR THIS PURPOSE.

7. CONTRACTOR SHALL COORDINATE ALL WORK WITH MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER SUB-TRADES AND REPORT TO ARCHITECT ANY DISCREPANCIES FOR CORRECTION OR ADJUSTMENT. NO ALLOWANCE WILL BE MADE FOR INCREASED COST INCURRED DUE TO LACK OF PROPER COORDINATION.

GENERAL NOTES (CONT'D)

8. THE CONTRACTOR, OR SUBCONTRACTORS, SHALL SECURE AND PAY FOR ALL PERMITS, GOVERNMENTAL FEES, AND LICENSES REQUIRED FOR PROPER COMPLETION OF THE WORK. THE CONTRACTOR SHALL REQUEST ALL INSPECTIONS REQUIRED BY LOCAL GOVERNMENTAL AGENCIES AND COORDINATE HIS WORK WITH SUCH.

9. THE GENERAL CONTRACTOR SHALL SUBMIT ONE (1) COPY OF ALL MANUFACTURER'S WARRANTIES AND OPERATIONS/MAINTENANCE INSTRUCTIONS TO THE OWNER.

10. FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING THE WORK. SHOULD THE CONTRACTOR FIND, AFTER THE VISIT TO THE SITE OR DURING CONSTRUCTION, ANY DISCREPANCIES, OMMISSIONS, AMBIGUITIES, OR CONFLICTS IN OR AMONG THE DRAWINGS, OR BE IN DOUBT AS TO THEIR MEANING, HE/SHE SHOULD IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING BEFORE PROCEEDING.

11. ALL WOOD BLOCKING TO BE FIRE TREATED.

12. GROUNDS/BLOCKING MAY NOT BE WHOLLY SHOWN ON DRAWINGS AND GOOD CONSTRUCTION PRACTICE SHALL GOVERN/DETERMINE SAID USE WHEN A QUESTION ARISES.

13. THE GENERAL CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO ALL LOCATIONS OF DRY WALL PARTITION COSTRUCTION THAT ABUTT OR RECEIVE MILLWORK OR CABINETRY.

14. ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY LESS THAN 8 INCHES FROM THE GROUND SHALL BE PRESSURE TREATED OR REDWOOD.

15. ISOLATE DISSIMILAR METALS SO THEY ARE NOT IN CONTACT WITH EACH OTHER TO PREVENT/AVOID ELECTROLYTIC REACTION.

16. CONTRACTOR SHALL COMPLY WITH CURRENT APPLICABLE LOCAL ORDINANCES FOR UTILITY SERVICES.

17. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES. WHERE ENCOUNTERED, CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS FOR SUPPORT, SHORE-UP, REROUTE OR UTILITY DISCONNECTIONS AS REQUIRED BY APPLICABLE LOCAL OR PRIVATE UTILITY COMPANIES.

18. THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL AND PLUMBING ROUGH-IN LOCATIONS FOR ANY SPECIAL EQUIPMENT WITH THE SUPPLIER OF SUCH EQUIPMENT.

19. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THEIR SEPARATE CONTRACTORS AT BUILDING PENETRATIONS SUCH AS WINDOW DOORS, VENTS, LOUVERS, ETC.

20. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION AND REQUIRED CLEARANCES OF THE EQUIPMENT, NOT STRUCTURAL MEMBER SHALL BE OMITTED, NOTCHED OUT, BLOCKED OUT, OR RELOCATED WITHOUT PRIOR APPROVAL BY THE ARCHITECT OR ENGINEER.

21. WINDOWS AND DOOR LIGHTS W/IN 40" OF LOCKING DEVICE SHALL BE FULLY TEMPERED.

22. THE ELECTRIC SUBCONTRACTOR SHALL FURNISH AND INSTALL EXIT LIGHTS IN ACCORDANCE WITH THE PREVAILING BUILDING AND FIRE CODES.

23. ALL PRODUCTS AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS/SPECIFICATIONS UNLESS SPECIFIED OTHERWISE.

24. MATERIALS, EQUIPMENT, AND CRAFTSMANSHIP OF ALL TRADES SHALL CONFORM TO RECOGNIZED ASTM OF QUALITY APPROPRIATE TO GRADE OF SAID MATERIALS, EQUIPMENT, AND CRAFTSMANSHIP.

25. MATERIALS AND EQUIPMENT SHALL BE NEW, SOUND, OF HIGH QUALITY, AND SUITABLE FOR APPLICATIONS SPECIFIED.

26. MATERIALS SHALL BE POSITIONED IN AN ORDERLY MANNER AND SHALL BE ALIGNED WITH THE BUILDING STRUCTURE. VERTICAL MEMBERS/SURFACES SHALL BE PLUMB. HORIZONTAL MEMBERS/SURFACES SHALL BE LEVEL AND ALL SURFACES TRUE TO PLANES SPECIFIED.

27. CRAFTSMANSHIP SHALL BE NEAT, CLEAN, AND TRUE TO LINE AND DIMENSION. FINISH MATERIALS SHALL BE FREE OF TOOL MARKS, FLAWS AND BLEMISHES, JOINERY AND CONNECTIONS SHALL BE ACCURATE, CLOSE/TIGHT FITTING AND WELL CRAFTED. TOLERANCES RECOGNIZED BY NATIONAL TRADE ASSOCIATIONS WILL BE THE MINIMUM ACCEPTABLE STANDARD FOR RESPECTIVE TRADE WORK.

28. CEILING PLANE SHALL BE LEVEL AND TRUE AND IN ALIGNMENT WITH ALL LIGHTING, SPRINKLER, HVAC, AND OTHER ELEMENTS INCORPORATED THEREIN.

29. MECHANICAL, HVAC, AND PLUMBING ELEMENTS SHALL AT NO TIME COME IN CONTACT WITH CEILING CONSTRUCTION EXCEPT AS NECESSARY PENETRATIONS MAY REQUIRE.

30. MATERIALS, EQUIPMENT, AND/OR CONTRUCTIVE SERVICES NOT INDICATED IN DRAWINGS OR SPECIFIED HEREIN, BUT REQUIRED FOR SUCCESSFUL AND EFFICIENT COMPLETION OF THE INSTALLATION SHALL BE CONSIDERED IMPLIED IN THE DOCUMENTS. CONTENTS AND SAID MATERIAL, EQUIPMENT, AND/OR CONSTRUCTIVE SERVICES SHALL BE FURNISHED AND INSTALLED AT NO ADDITIONAL COST TO THE OWNER.

31. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS OR LEVEL OF CRAFTSMANSHIP, SUCH STANDARDS SHALL BE MAINTAINED PER THE LATEST ADDITION AND/OR ADDENDUM.

32. ANY OMISSIONS OR CONFLICTS WITHIN THE DRAWINGS, NOTES, OR DETAILS SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH WORK.

33. WHERE SPECIFIC INSTRUCTIONS REQUIRE THAT A PARTICULAR PRODUCT OR MATERIAL BE INSTALLED BY MANUFACTURER OR PER MANUFACTURER'S INSTRUCTIONS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ANY SUBCONTRACTORS ARE APPROVED APPLICATORS AND THAT INSTALLERS FOLLOW THE MANUFACTURER'S INSTRUCTIONS.

34. DETAILS SHOWN SHALL BE INCORPORATED INTO CONSTRUCTION AT ALL APPROPRIATE LOCATIONS WHETHER SPECIFICALLY CALLED OUT/IDENTIFIED OR NOT.

35. TYPICAL DETAILS SHALL APPLY IN GENERAL CONSTRUCTION THROUGHOUT, UNLESS DETAILED OTHERWISE ON DRAWINGS.

35. SHOP DRAWINGS: CONTRACTOR SHALL FURNISH SHOP DRAWINGS FOR ALL SHOP FABRICATED ITEMS AND WHERE CUSTOMARILY REQUIRED. SUBMIT FOUR (4) SETS OF SHOP DRAWINGS FOR REVIEW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE SHOP DRAWINGS FOR ACCURACY, COORDINATION WITH OTHER TRADES, AND COMPLIANCE WITH THE CONTRACT DOCUMENTS BEFORE BEING SUBMITTED FOR APPROVAL. ARCHITECT'S OR ENGINEER'S APPROVAL OF SHOP DRAWINGS SHALL CONSTITUTE REVIEW AND APPROVAL OF THE GENERAL ARRANGEMENT OF COMPONENTS TO COMPLY WITH THE GENERAL INTENT OF THE CONSTRUCTION DOCUMENTS, EVEN IF SUCH ITEMS ARE NOT SHOWN ON THE SHOP DRAWINGS. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND CONDITIONS TO INSURE A PROPER FIT UNDER FIELD CONDITIONS AND SHALL MAKE ADJUSTMENTS AS REQUIRED TO MAKE PARTS ALIGN. ALL REVISIONS TO SHOP DRAWINGS AFTER THE FIRST SUBMISSION MUST BE PROPERLY IDENTIFIED ON SUBSEQUENT SUBMISSIONS.

GENERAL NOTES (CONT'D)

36. TYPICAL DETAILS SHALL APPLY IN GENERAL CONSTRUCTION THROUGHOUT, UNLESS DETAILED OTHERWISE ON DRAWINGS.

37. A MINIMUM QUANTITY OF TWO (2) 1'-0" x 1'-0" FINISH SAMPLES OF ALL SPECIFIED FINISHES AND CURRENT STOCK CUTTINGS OF ALL SPECIFIED WALL-COVERINGS SHALL BE PROVIDED FOR APPROVAL PRIOR TO ORDERING.

38. PAINT FOR WALL FINISHES SHALL BE PROVIDED AS THREE (3) COAT EGGSHELL LATEX ENAMEL PAINT. INSTALLATION: ONE (1) PRIME COAT AND TWO (2) FINISH COATS. COLORS AS SPECIFIED. METAL ELEMENTS AND DOOR FRAMES SHALL HAVE A THREE (3) COAT SEMI-GLOSS ALKYD ENAMEL FINISH.

39. THE GENERAL CONTRACTOR SHALL ASSURE THAT NOT ELECTRIC RECEPTACLE OR TELECOMMUNICATIONS OUTLET COVERPLATES HAVE BEEN INSTALLED PRIOR TO COMPLETION OF APPLICATION OF ANY WALL FINISH MATERIALS. ANY SUCH COVERPLATES OR SURFACE HARDWARE, ETC. IN PLACE SHALL BE REMOVED PRIOR TO WALL FINISH APPLICATION.

40. THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN COMPLETE PROTECTION FOR ALL NEW INSTALLED FLOOR FINISHES (INCLUDING CARPET) UNTIL ALL CONSTRUCTION WORK IS COMPLETE. PROTECTION SHALL BE REMOVED ONLY IMMEDIATELY PRIOR TO JOB COMPLETION.

41. NO WORK IS TO COMMENCE UNTIL PLANS HAVE BEEN APPROVED BY THE DEPARTMENT OF BUILDINGS AND PERMIT TO BUILD HAS BEEN OBTAINED BY THE GENERAL CONTRACTOR.

42. PRIOR TO THE START OF CONSTRUCTION, THE GENERAL CONTRACTOR SHALL COORDINATE SCHEDULING OF MEETING WITH HIS PROJECT PERSONNEL, THE OWNER, ARCHITECT, AND OTHERS FOR REVIEW OF PROJECT SCOPE, DESIGN, INTENT, CONSTRUCTION QUALITY EXPECTED, AND FINAL DISCUSSION OF DRAWINGS/DETAILS/QUESTIONS.

43. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE CODES OF THE LOCAL JURISDICTION.

44. THE GENERAL CONTRACTOR AND ALL VENDORS/SUBCONTRACTORS ARE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS, QUANTITIES, ETC. OF THEIR RESPECTIVE WORK.

45. DO NOT SCALE DRAWINGS. WHERE DIMENSIONS BETWEEN SMALL SCALE AND DETAIL DRAWINGS DIFFER, DETAIL DIMENSIONS SHALL GOVERN. FIELD VERIFY ALL DIMENSIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES.

46. IF SPACE IS AVAILABLE, THE OWNER MAY PERMIT THE CONTRACTOR TO STORE SOME MATERIALS ON THE SITE IN AN AREA APPROVED BY THE OWNER – PROVIDED THAT THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR ANY AND ALL STORED MATERIALS.

47. GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, AIA DOCUMENT A-201, THE LATEST EDITION, SHALL BE MADE A PART OF THESE DRAWINGS.

48. THE GENERAL CONTRACTOR SHALL CARRY WORKMEN'S COMPENSATION AND LIABILITY INSURANCE TO COVER ALL CONSTRUCTION OPERATIONS TO BE PERFORMED.

49. DRAWINGS AND SPECIFICATIONS AS INSRUMENTS OF SERVICE REMAIN THE PROPERTY OF ARCHITECT AND ARE PROTECTED UNDER COMMON LAW COPYRIGHT PROVISIONS. THEY ARE NOT TO BE REUSED EXCEPT BY WRITTEN AGREEMENT AND WITH THE AGREED COMPENSATION TO THE ARCHITECT. IF REUSED, WITHOUT PERMISSION, THE ARCHITECT SHALL BE INDEMNIFIED AND HELD HARMLESS FROM ALL LIABILITY, LEGAL EXPOSURE, CLAIMS, DAMAGES, LOSSES & EXPENSES. DRAWINGS SHALL NOT BE USED FOR ISSUANCE OF A BUILDING PERMIT UNLESS SIGNED AND SEALED BY THE ARCHITECT. DRAWINGS SHALL NOT BE USED FOR MULTIPLE OR PROTOTYPE DEVELOPMENT WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT.

50. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL COMPLETION/RECEIPT OF FINAL PAYMENT. SHOULD DEFECTS DEVELOP WITHING THE GUARANTEE PERIOD DUE TO FAULTS IN MATERIALS AND/OR LABOR, THE CONTRACTOR SHALL MAKE REPAIRS AND COMPLETE ALL NECESSARY WORKS AS SOON AS POSSIBLE. SPECIFIC MATERIAL AND/OR MATERIAL ASSEMBLIES SUPPLIED BY INDEPENDENT MANUFACTURERS SHALL BE GUARANTEED AS FOLLOWS: (1) IF MANUFACTURER'S / FABRICATOR'S GUARANTEES / WARRANTIES EXCEED THE ONE YEAR STIPULATED PERIOD OF GUARANTEE / WARRANTY, THE SUCH GUARANTEES / WARRANTIES SHALL BE BINDING FOR THE DURATION STIPULATED IN EXCESS OF THE ONE YEAR STIPULATED PERIOD. (2) IF MANUFACTURER'S / FABRICATOR'S GUARANTEES / WARRANTIES ARE LESS THAN THE ONE YEAR STIPULATED PERIOD OF GUARANTEE / WARRANTY, THEN THE CONTRACTOR AND ASSOCIATED SUB-CONTRACTORS SHALL ASSUME THE GUARANTEES / WARRANTIES FOR MATERILS AND MATERIAL ASSEMBLIES TO THE ONE YEAR STIPULATED PERIOD.

THE CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH CONTRACT DOCUMENTS. THE CONTRACTOR IS TO INFORM THE ARCHITECT OF ANY PROPOSED SUBSTITUTIONS IN WRITING AT LEAST THIRTY (30) DAYS IN ADVANCE AND WILL NOT PROCEED WITH THE PROPOSED SUBSTITUTIONS WITHOUT CONSENT FROM THE ARCHITECT.

REGISTERED ARCHITECT
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SEPTEMBER 12, 2016

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PALMER PAVILION & LES GILMORE KITCHEN RENOVATION

Mc ALLEN, TEXAS USA

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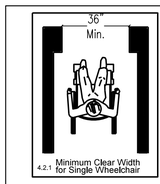
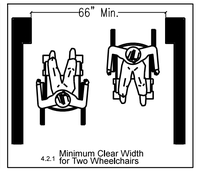
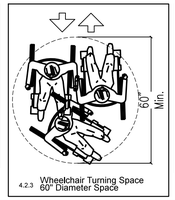
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	SRG
CHECKED BY:	SRG

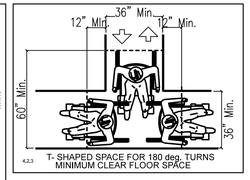
GENERAL NOTES

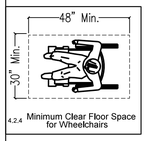
GN1

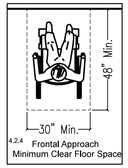


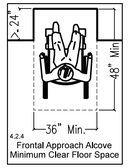


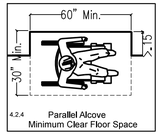


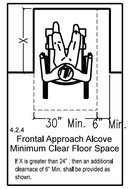


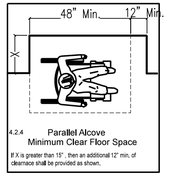


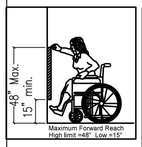












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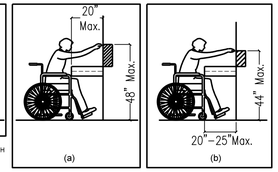

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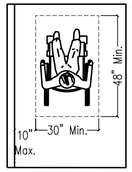

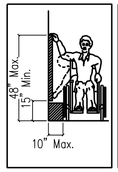

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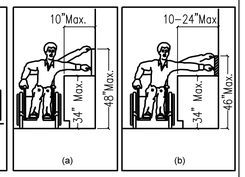

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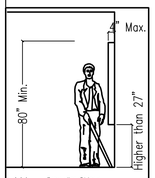
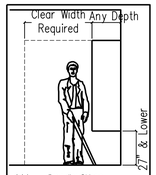
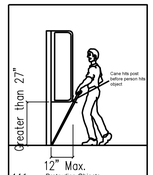




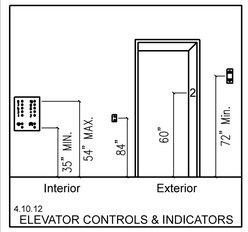


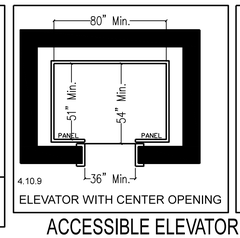
SPACE ALLOWANCES & REACH RANGES

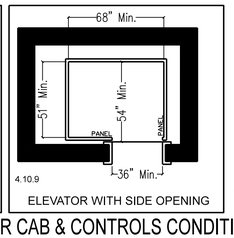
Capacity of Seating in Assembly Areas	Number of Req'd Wheelchair Spaces
4 to 25	1
26 to 50	2
51 to 300	4
301 to 500	6
over 500	6 plus 1 additional for each 500 seating capacity increase or fraction

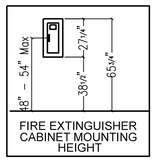
In places of assembly with fixed seating, accessible wheelchair locations shall comply with chart. In addition, 1% (or at least one) of all fixed seatis shall be and aisle seat with no armrest on the aisle side.

Accessible Seating

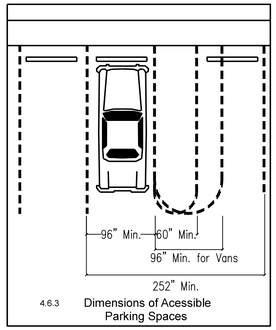


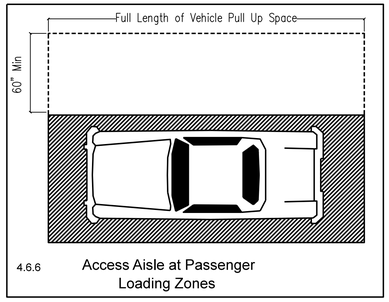


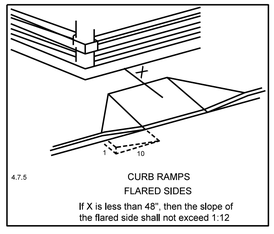


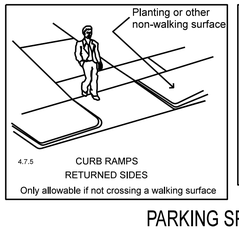


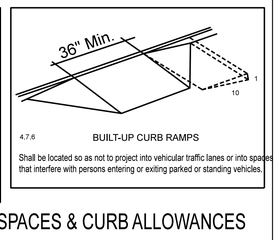
ACCESSIBLE ELEVATOR CAB & CONTROLS CONDITIONS



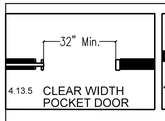


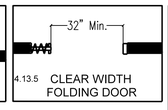


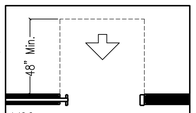


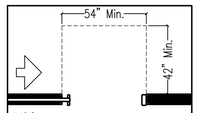


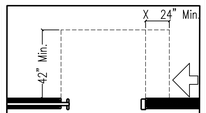
PARKING SPACES & CURB ALLOWANCES

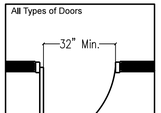


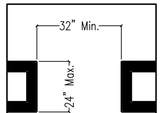


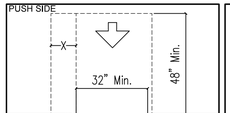


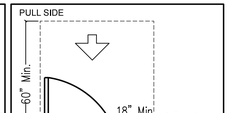




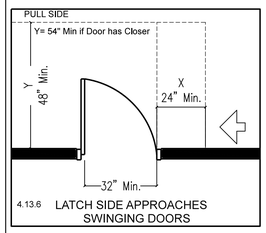


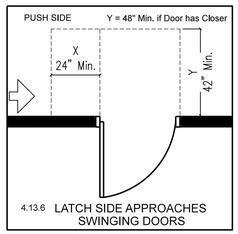


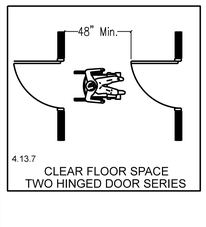


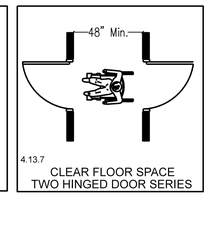


IF DOOR HAS BOTH CLOSER & LATCH, X =12"

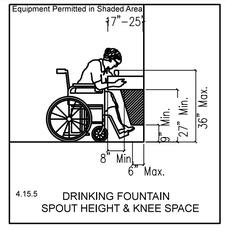


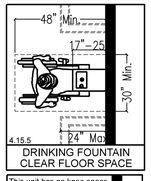


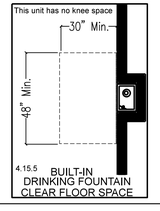


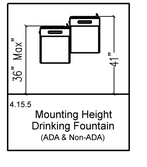


DOOR CLEARNACE AND WIDTH RANGES

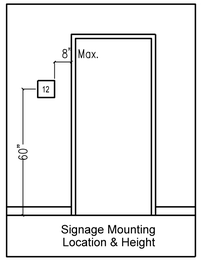








WATER COOLERS & DRINKING FOUNTAIN CLEARANCES



SIGNAGE

Letters & numbers shall have a height to width ratio between 3:5 and 1:1 and a stroke width to height ration between 1:5 & 1:10 using a upper case "X" for measurement.

Letters and Numerals shall be raised 1/32", upper case, Sans Serif or Simple Serif the font and shall be accompanied with Grade 2 Braille. Raised characters shall be at least 5/8" high but no higher than 2". Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimension of the pictogram shall be 6" minimum in height.

The finish of the characters & background shall be eggshell, matte or other non-glare finishes. Characters shall contrast with their background, by means of dark and light color variations.

Acceptable Variation of Symbol

Acceptable Variation of Symbol

International Symbol of Accessibility

ACCESSIBLE SIGNAGE & GRAPHICS

Parking Space Requirements

Total Parking in Lot	Number of Req'd Accessible Spaces	Total Parking in Lot	Number of Req'd Accessible Spaces
1 to 25	1	201 to 300	7
26 to 50	2	301 to 400	8
51 to 75	3	401 to 500	9
76 to 100	4	501 to 1000	2 percent of total
101 to 150	5	1001 over	20 plus 1 additional for each 100 over 1000
151 to 200	6		

Access aisles adjacent to accessible spaces shall be 60" wide at a minimum. (certain exception where noted). Parallel Parking is discouraged. Spaces need to be located along the accessible path. Each spot shall have appropriate signage in complinace with TAS guidelines.

General Requirements

GENERAL PROVISIONS	Adult	Grade K-5	Grade 6-9
Reach Ranges			
Frontal Approach	48" Max	42" Max	45" Max
Side Approach	54" Max	48" Max	51" Max
Ramps & Stairs			
Top of Handrail Gripping Surface	34" to 38" Max	28" to 34" Max	30" to 34" Max
Nominal Diameter of Handrail	1.25" to 1.5" Max	1.25" to 1.5" Max	1.25" to 1.5" Max
Clear Space from Mounting Surface	1.5" Min	1.5" Min	1.5" Min
Elevators			
Car Control Floor Buttons			
Frontal Approach	48" Max	42" Max	45" Max
Side Approach	54" Max	48" Max	51" Max
Emergency Control Buttons			
Centerline of Button	35" Min	35" Min	35" Min
Emergency Communications			
Highest Operable Part	48" Max	42" Max	45" Max
Platform Lifts			
Controls/Operating Mechanisms	28" to 48" Max	28" to 42" Max	28" to 45" Max
Drinking Fountains & Water Coolers			
Frontal Approach			
Spout Height (to outlet)	36" Max	32" Max	34" Max
Knee Clearance	27" Min	26" Min	28" Min
Side Approach			
Spout Height	36" Max.	32" Max.	34" Max.
Water Closets			
Top of Seat	17" to 19" Max	14" to 15" Max	15" to 17" Max
Grab Bars	33" to 36" Max	28" to 30" Max	30" to 32" Max
Flush Controls	44" Max	42" Max	44" Max
Urinals			
Rim of Basin	17" Max	14" Max	16" Max
Flush Controls	44" Max.	42" Max.	44" Max.
Lavatories & Sinks			
Rim of Counter & Surface	34" Max	30" Max	32" Max
Knee Clearance	29" Min.	26" Min.	28" Min.
To Faucets From Front Edge	19" Max	18" Max	19" Max
Mirrors			
To Bottom of Reflective Surface	40" Max	34" Max	37" Max
Bathtubs			
Top of Seat	17" to 19" Max	14" to 15" Max	15" to 16" Max
Center of Grab Bars	33" to 36" Max	28" to 30" Max	30" to 32" Max
Hand Shower Head Mounting	10" to 36" Max	42" Max	45" Max
Shower Stalls			
Top of Seat	17" to 19"	14" to 15" Max	15" to 16" Max
Center of Grab Bars	33" to 36"	28" to 30" Max	30" to 32" Max
Hand Shower Head Mounting			
Frontal Approach	48" Max	42" Max	45" Max
Side Approach	54" Max	48" Max	51" Max
Control Mounting Areas			
36" x 36" Stall	38" Max - 48" Max		
30" x 60" Stall	38" Min - 48" Max		
Storage			
Frontal Approach	48" Max	42" Max	45" Max
Side Approach			
Distance From WheelChair			
0" - 10"	54" Max	48" Max	51" Max
10" - 21"	48" Max	42" Max	45" Max
Controls & Operating Mechanisms			
Highest Operable Part			
Frontal Approach	48" Max	42" Max	45" Max
Side Approach	54" Max	48" Max	51" Max
Receptacle Height	15" Min	15" Min	15" Min
Fixed Or Built-in Furniture			
Height of Tables & Counters	28" to 34" Max	28" to 30" Max	28" to 32" Max
Knee Clearance Height	27" Min.	26" Min.	28" Min.
Width	30" Min.	30" Min.	30" Min.
Depth	19" Min.	19" Min.	19" Min.
Dressing & Fitting Rooms			
Top of Bench	17" to 19" Max	14" to 15" Max	15" to 17" Max
Food Service Lines			
Top of Tray Slide	34" Max	30" Max	32" Max

These are required provision for use in facilities with adults (above the age of 15) as primary users. Unless specified, construction shall comply with these provided dimensions.

These are required provision for use in facilities with children (ages ranges shown) as primary users. In specified projects, construction shall comply with these provided dimensions.

NOTE
This sheet and the information on it shall only serve as a reference for allowable layouts and alternate dimensions. The construction drawings shall be followed for construction purposes. Should a conflict arise between the construction drawings and this sheet, contact the architect for clarification.

REGISTERED ARCHITECT SAMUEL RAYMOND GARCIA JR. 21333 STATE OF TEXAS
SEPTEMBER 12, 2016

SAM GARCIA ARCHITECT
200 S. 10th Street | Suite 1602
McAllen, TX 78501
(956) 212-4930
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PALMER PAVILION RENOVATION

Mc ALLEN, TEXAS USA

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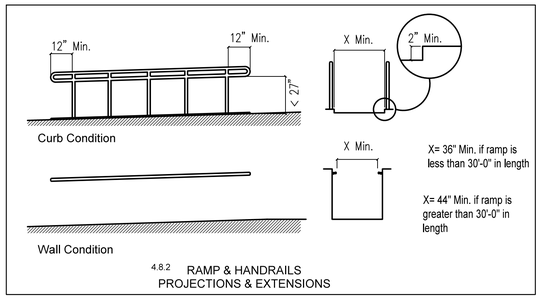
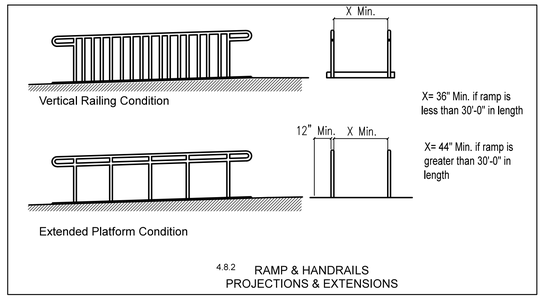
JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	FA
CHECKED BY:	SRG

ADA / TAS GUIDELINES
SHEET 1 OF 2

ADA1

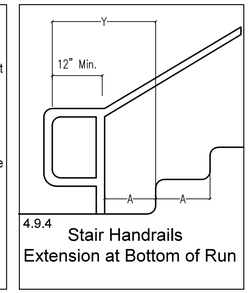


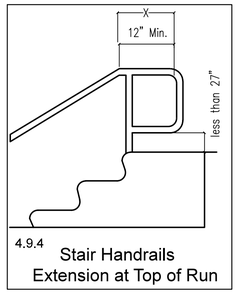


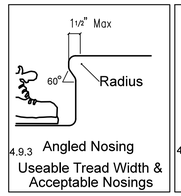
HANDRAIL & RAMP CONDITIONS & CLEARANCES

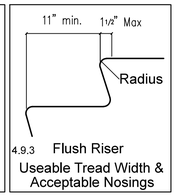
Stair Handrails

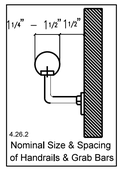
All stairways shall have handrails along both sides of stairs. Handrails shall be continuous at switchbacks & doglegs. If handrails are not continuous, they shall extend at least 12" beyond the top riser and at least 12" plus the width of one tread beyond the bottom riser. At the top the extension shall run parallel with the floor. At the bottom the extension shall continue to slope for the distance of one tread from bottom riser with the remainder parallel to the floor.

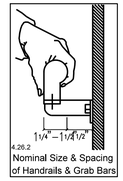




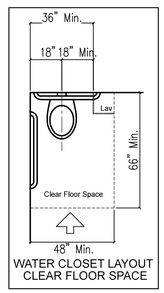


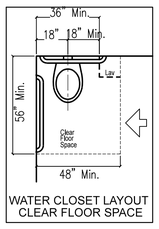


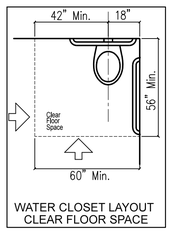


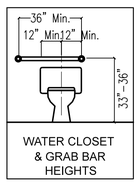


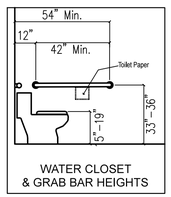
HANDRAIL & STAIR NOSING ACCESSIBLE CONDITIONS

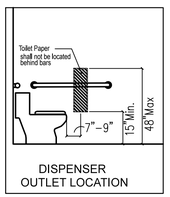


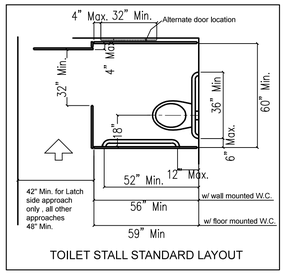


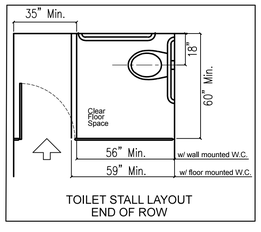


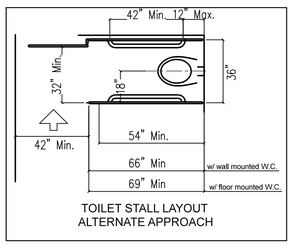


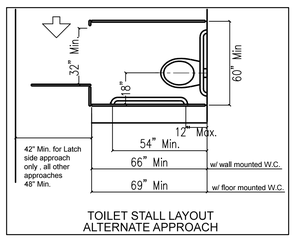


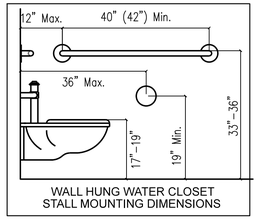


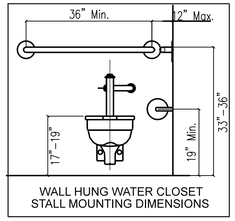


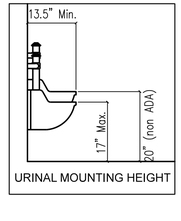


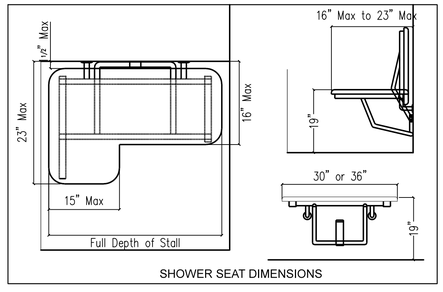


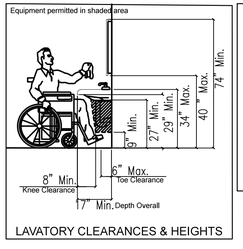


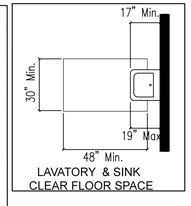


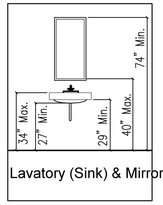












WATER CLOSET AND TOILET STALL CLEAR SPACES, GRAB BARS, AND ACCESSIBLE LAYOUTS

NOTE

This sheet and the information on it shall only serve as a reference for allowable layouts and alternate dimensions. The construction drawings shall be followed for construction purposes. Should a conflict arise between the construction drawings and this sheet, contact the architect for clarification.

REGISTERED ARCHITECT SAM RAYMOND GARCIA 21333 STATE OF TEXAS

SEPTEMBER 12, 2016

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PALMER PAVILION RENOVATION

USA

Mc ALLEN, TEXAS

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JOB #:	2015-010
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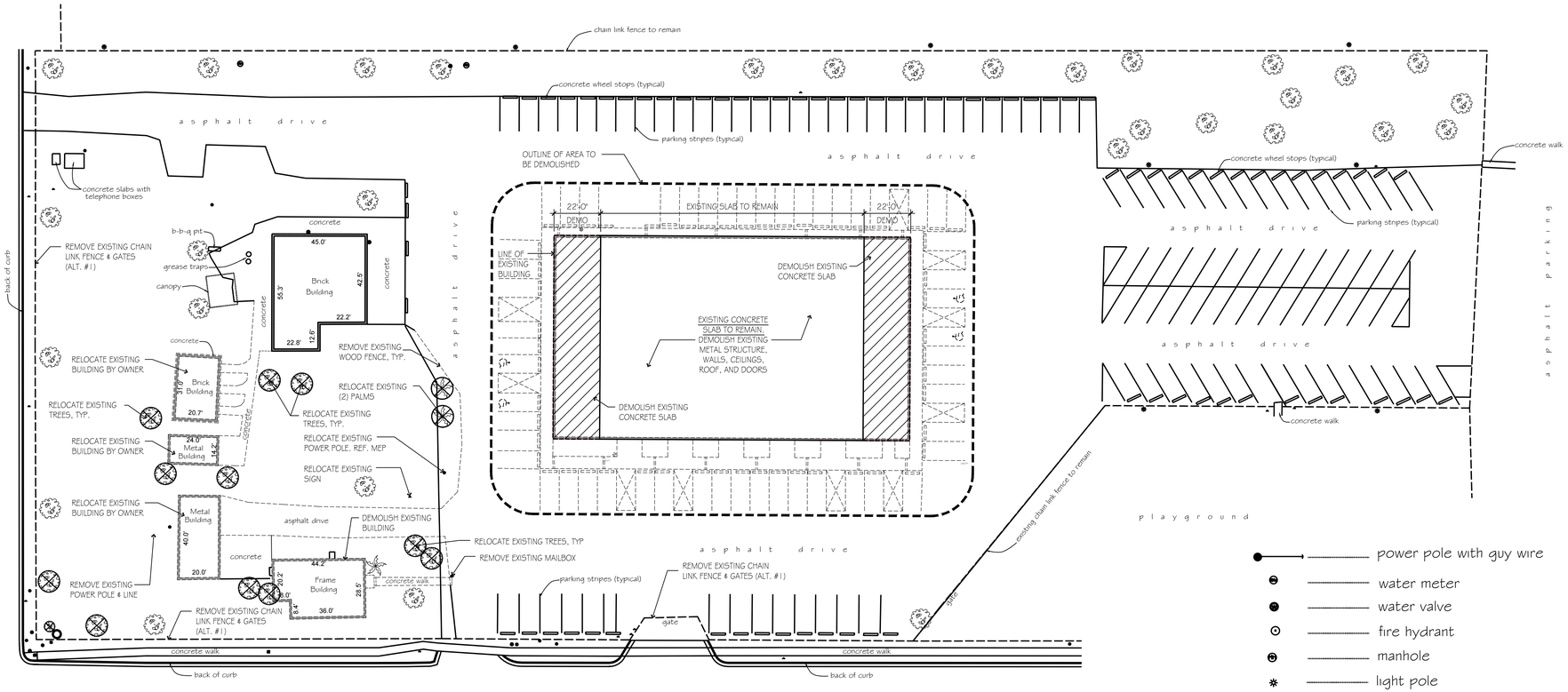
DRAWN BY:	MFA
CHECKED BY:	SRG

ADA / TAS GUIDELINES
SHEET 2 OF 2

ADA2

Hidalgo County Housing Authority - Memorial Apartments



HACKBERRY AVENUE

- power pole with guy wire
- water meter
- water valve
- fire hydrant
- manhole
- light pole
- sign
- telephone pedestal
- tree
- palm
- fiber optic marker
- crosswalk signal
- traffic signal box
- clean-out

LEGEND

- REMOVE OR DEMOLISH EXISTING CONDITIONS
- EXISTING CONDITIONS TO REMAIN
- RELOCATE EXISTING TREE / PALM

N

EXISTING / DEMO SITE PLAN

1" = 30'-0"

1

GENERAL NOTES

1. THESE DRAWINGS ARE INTENDED TO ILLUSTRATE THE LOCATIONS OF ALL NEW CONSTRUCTION, BUT ARE NOT TO BE SCALED. THE DIMENSIONS SHALL SUPERSEDE THE SCALE.

2. THE GENERAL CONTRACTOR IS REQUIRED TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ALL INFORMATION IN REGARDS TO THE EXISTING FIELD CONDITIONS, MATERIALS, AND METHODS OF CONSTRUCTION, DIMENSIONS, AND/OR DEFLECTIONS SHALL BE OBSERVED, NOTED, AND VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO ANY CONSTRUCTION OR FABRICATION. ANY AND ALL INFORMATION GATHERED THAT IS IN CONFLICT WITH THE CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH ANY RELATED WORK.

3. FINISH FLOOR ELEVATIONS ARE 100'-0" AND ARE TO TOP OF CONCRETE UNLESS OTHERWISE NOTED OR SPECIFIED.

4. ALL ANGLES ARE 0, 45, OR 90 DEGREES UNLESS OTHERWISE SPECIFIED.

5. ALL EXTERIOR EXPOSED METAL SHALL BE GALVANIZED AND PAINTED UNLESS OTHERWISE NOTED.

SITE PLAN NOTES

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2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UNDERGROUND UTILITIES WHETHER SHOWN OR NOT ON THE DRAWINGS, SUFFICIENTLY IN ADVANCE OF CONSTRUCTION TO PRECLUDE DAMAGE TO SAME.

3. FOR ALL DIMENSIONS AND RADII OF PARKING, CURBS, AND OTHER PAVEMENT, REFER TO CIVIL ENGINEERING CONSTRUCTION DOCUMENTS.

4. REFER TO CIVIL ENGINEERING CONSTRUCTION DOCUMENTS TO VERIFY DIMENSIONS, MATERIALS, ELEVATIONS, UTILITY TIE-INS AND CURB/GUTTER LAYOUT.

5. PROVIDE PVC SLEEVES CONNECTING ALL LANDSCAPED AND/OR SODDED ISLANDS, BERMS, AND ENTRY DRIVES, REFER TO LANDSCAPE DRAWINGS FOR SIZE AND LOCATION.

6. REFER TO LANDSCAPING CONSTRUCTION DOCUMENTS FOR ALL OTHER INFORMATION PERTAINING TO LANDSCAPING, PLANTING, IRRIGATION, RETENTION, ETC.

7. REFER TO ELECTRICAL SITE PLAN FOR LOCATION OF EXTERIOR LIGHTING ELEMENTS AND RELATED INFORMATION.

8. ALL PARKING SPACES SHALL BE 9'-0" WIDE BY 18'-0" DEEP UNLESS NOTED OTHERWISE.

9. PRIOR TO SUBSTANTIAL COMPLETION CONTRACTOR SHALL OBTAIN LAYOUT FOR FIRE-LANE STRIPING FROM CITY OF BROWNSVILLE FIRE DEPARTMENT AND PAINT DRIVES AND CURBS AS PER THEIR INSTRUCTIONS.

REGISTERED ARCHITECT
SAM RAYMOND GARCIA JR.
2333
STATE OF TEXAS

SEPTEMBER 12, 2016

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PALMER PAVILION RENOVATION

Mc ALLEN, TEXAS

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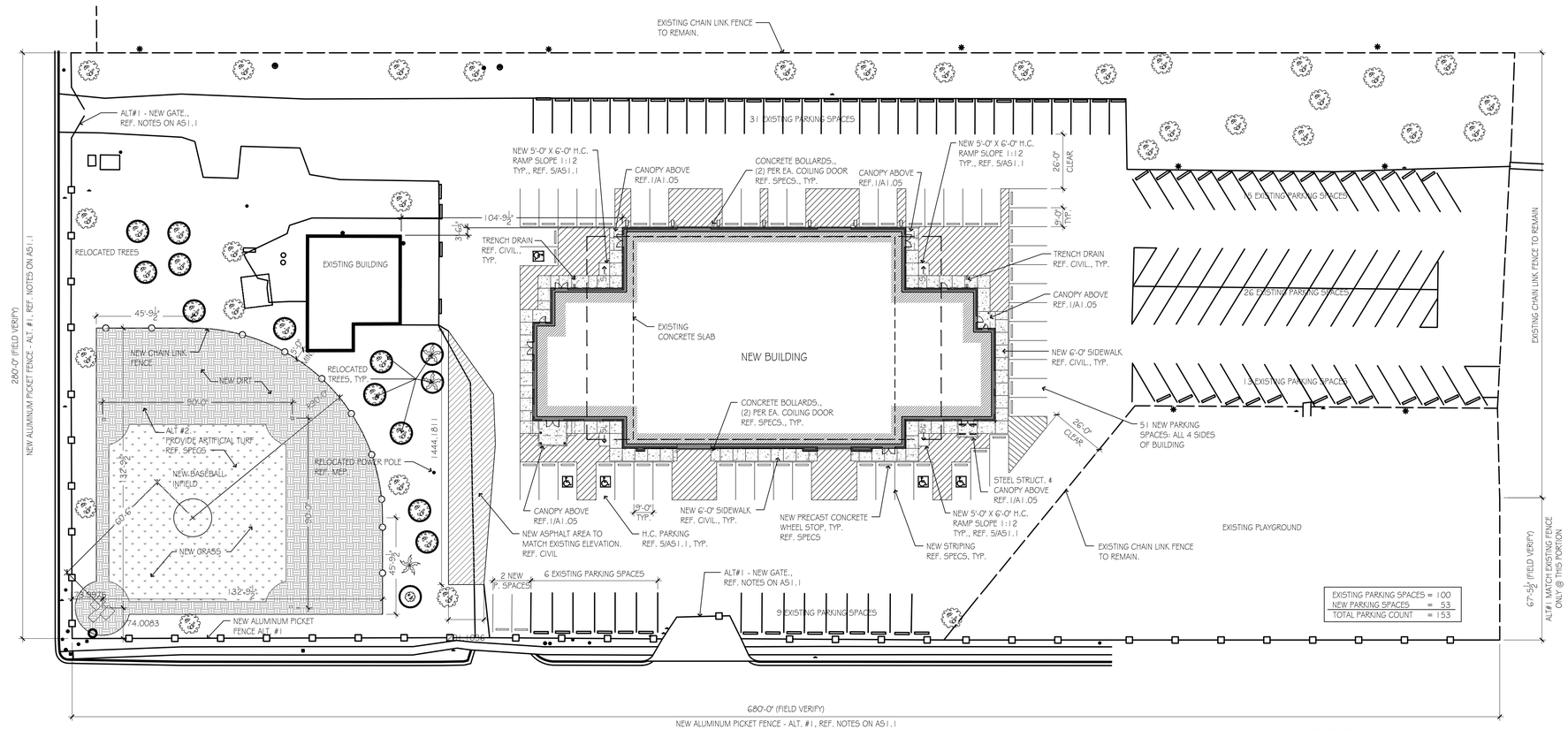
DRAWN BY:	FA
CHECKED BY:	SRG

EXISTING / DEMO SITE PLAN

AS1.0



LEGEND

RELOCATED EXISTING TREE / PALM

N

NEW SITE PLAN

1" = 30'-0"

1

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ALTERNATE #1

1. DEMOLISH EXISTING 6' TALL CHAIN LINK FENCE ALONG HACKBERRY AVE. AND MUSTANG DRIVE.

2. REPLACE WITH 4' TALL ALUMINUM PICKET FENCE W/ TWO ENTRY GATES. FENCE SHALL MATCH THE FENCE AT ADJACENT CHARLES E. CURTIS PARK. REFER TO NEW SITE PLAN (1/AS1.1) FOR LINEAR FEET.

ALTERNATE #2

1. PROVIDE ARTIFICIAL TURF AT NEW BASEBALL INFIELD IN LIEU OF GRASS AND DIRT.

PARKING REQUIREMENTS

AS PER CITY OF MCALLEN MUNICIPAL CODE (SEC.138-395), PARKING REQUIREMENTS WERE COMPUTED IN FOLLOWING MANNER:

Ⓐ "BINGO HALL, COMMERCIAL SPORTS ARENA, OR GYMNASIUM: ONE PARKING SPACE FOR EACH 2.5 SEATS OR SEATING SPACES."

Ⓑ "DANCE HALL, ASSEMBLY, EXHIBITION HALL WITHOUT FIXED SEATS, CLUB, OR LODGE: ONE PARKING SPACE FOR EACH 100 SQUARE FEET OF FLOOR AREA USED THEREFOR."

Ⓒ "COMMERCIAL DEVELOPMENT: FOUR PARKING SPACES FOR UP TO 400 SQUARE FEET OF FLOOR AREA PLUS ONE PARKING SPACE FOR EACH ADDITIONAL 400 SQUARE FEET OF FLOOR AREA."

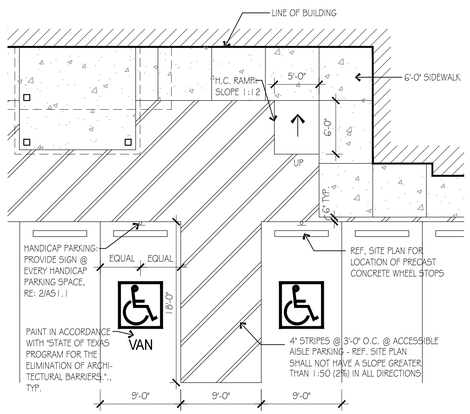
CALCULATIONS:

Ⓐ GYMNASIUM & WAITING AREA:
258 SEATS / 2.5 =104 PARKING SPACES

Ⓑ SENIOR CENTER:
2,411 SQ. FT. / 100 = 25 PARKING SPACES

Ⓒ LES GILMORE KITCHEN:
(2,205 SQ. FT. / 400) + 3 SPACES = 9 SPACES

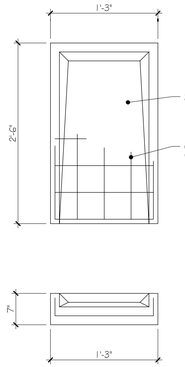
TOTAL PARKING REQUIREMENT: 138 SPACES
TOTAL PARKING PROVIDED: 153 SPACES



HANDICAP STRIPING DETAILS

1/8" = 1'-0"

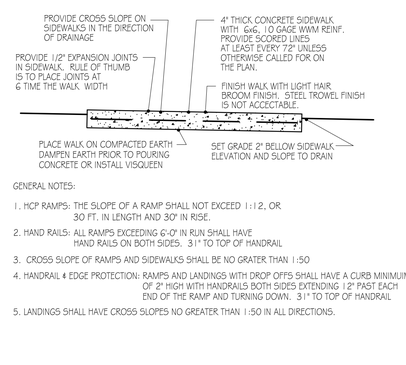
5



SPLASH BLOCK DETAIL

N.T.S.

4



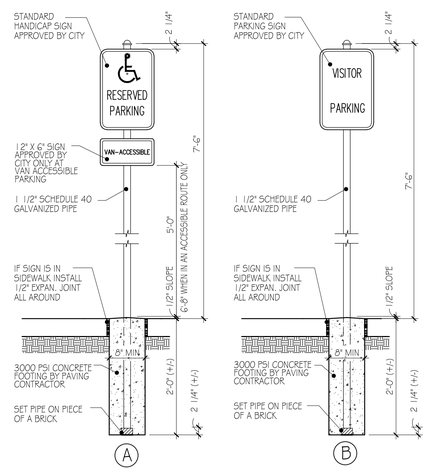
GENERAL NOTES:

1. HCP RAMPS: THE SLOPE OF A RAMP SHALL NOT EXCEED 1:12, OR 30 FT. IN LENGTH AND 30" IN RISE.
2. HAND RAILS: ALL RAMPS EXCEEDING 6'-0" IN RUN SHALL HAVE HAND RAILS ON BOTH SIDES. 31" TO TOP OF HANDRAIL
3. CROSS SLOPE OF RAMPS AND SIDEWALKS SHALL BE NO GRATER THAN 1:50
4. HANDRAIL & EDGE PROTECTION: RAMPS AND LANDINGS WITH DROP OFFS SHALL HAVE A CURB MINIMUM OF 2" HIGH WITH HANDRAILS BOTH SIDES EXTENDING 12" PAST EACH END OF THE RAMP AND TURNING DOWN. 31" TO TOP OF HANDRAIL
5. LANDINGS SHALL HAVE CROSS SLOPES NO GREATER THAN 1:50 IN ALL DIRECTIONS.

TYP. SIDEWALK DETAIL

N.T.S.

3



PARKING SIGN DETAILS

N.T.S.

2

SEPTEMBER 12, 2016

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PALMER PAVILION RENOVATION

Mc ALLEN, TEXAS USA

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PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	FA
CHECKED BY:	SRG

NEW SITE PLAN

AS1.1

SITE PLAN NOTES

GENERAL SITE NOTES:

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY, COUNTY, STATE, FEDERAL AND OSHA REGULATIONS.
2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, RAMPS, SIDEWALKS, EXIT PORCHES, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY ENTRANCE LOCATIONS, AND TOTAL NUMBER, LOCATION, AND SIZE OF DOWNSPOUTS.
3. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
4. ALL ISLANDS WITH CURB & GUTTER SHALL BE LANDSCAPED. THOSE ISLANDS ARE TO HAVE 18" CURB & GUTTER. ALL REMAINING ISLANDS ARE TO BE STRIPPED AS SHOWN.
5. ALL DIMENSIONS AND RADII ARE TO THE BACK OF CURB, EDGE OF PAVEMENT, CENTER OF STRIPE OR OBJECT, OR FACE OF BUILDING UNLESS OTHERWISE NOTED.
6. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS THAT ARE TO BE ABANDONED, REMOVED OR RELOCATED, SHALL BE DONE IN A PROPER MANNER OFFSITE, AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
8. THE SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED "THE CITY STANDARD SITE WORK SPECIFICATIONS".
9. CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND REPLACEMENT OF PROPERTY CORNERS.
10. CONTRACTOR SHALL MATCH EXISTING CURB & GUTTER IN GRADE, SIZE, TYPE AND ALIGNMENT WHERE APPLICABLE.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO DAMAGE OF ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING.

DEMOLITION PLAN NOTES

"CAUTION" - NOTICE TO CONTRACTOR:

THE CONTRACTOR IS PUT ON NOTICE THAT THERE ARE NUMEROUS UNDERGROUND UTILITIES IN THE LINE OF WORK, INCLUDING WATER, SEWER, GAS, TELEPHONE IRRIGATION (CONCRETE PIPE) AND ELECTRIC. THERE MAY BE OTHER UTILITIES INCLUDING CABLE TELEVISION, TELECOMMUNICATIONS AND OTHERS, SOME OF THESE UTILITIES MAY BE ABANDONED, WHILE MANY ARE ACTIVE.

THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN CONDUCTING EXCAVATION OPERATIONS, AND IF ANY EXISTING UTILITIES ARE DAMAGED, THEY SHALL BE REPAIRED IMMEDIATELY AT NO COST TO THE OWNER. THE CONTRACTOR IS TO BE AWARE THAT IF ANY EXISTING UTILITIES ARE SHOWN ON THE PLANS THEY ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY AND THAT THE EXISTING UTILITIES SHOWN REPRESENT ONLY A DILIGENT EFFORT TO SHOW THE APPROXIMATE LOCATION OF SOME OF THE UTILITIES.

THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST FILED LOCATION OF UTILITIES.

"NOTICE TO CONTRACTOR" - TEXAS ONE CALL SYSTEM:

AS REQUIRED BY THE "TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT" TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM.

GENERAL DEMOLITION NOTES:

1. NO EARTH DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERIMETER EROSION CONTROL MEASURES ARE IN PLACE IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN.
2. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
3. THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING, IRRIGATION PIPING, AND CONDUIT ON EXISTING SITE AS PART OF THE BASE BID, UP TO A DEPTH OF 24 INCHES BELOW EXISTING GRADES.
4. CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) ON THIS SITE UP TO A DEPTH OF 24 INCHES BELOW EXISTING GRADES AS PART OF BASE BID.
5. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATING AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
6. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
7. NOTES SHOWN HERE ON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE EXTENT AS NOTED IN THE SPECIFICATIONS, TO THE SATISFACTION OF THE OWNER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING SITE WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLUGGING, CAPPING, OR OTHERWISE TERMINATING UTILITY SERVICE LINES AT EXISTING METER LOCATIONS, CLEANOUTS, ETC.

INSPECTIONS/CERTIFICATIONS NOTE:

ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.

UTILITY PLAN NOTES

GENERAL UTILITY NOTES:

1. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
3. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED, THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING, THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE, MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50). CONTRACTOR SHALL BE RESPONSIBLE FOR ADDING 45° BENDS WHERE NECESSARY TO ROUTE PROPOSED WATER LINES AROUND PROPOSED STORM SEWER.
4. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE CITY UTILITY DEPARTMENT AS TO LOCATION AND SCHEDULING OF TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
5. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
6. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO BACKFILLING.
7. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
8. DRAWINGS TO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
9. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
11. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURE. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS OUTLINED BY OSHA.
12. CONTRACTOR SHALL REFER TO ARCHITECTS PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES TO INCLUDE: SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE.
13. ALL STEEL ENCASEMENT PIPE SHALL HAVE A WALL THICKNESS OF 0.25 INCHES.
14. ALL SANITARY SEWER AND WATER LINES SHALL COMPLY WITH THE REQUIREMENTS AS SPECIFIED IN THE SITE WORK SPECIFICATIONS.
15. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING, TO CENTERLINE OF MANHOLE, FACE OF BUILDING, OR BACK OF CURB UNLESS OTHERWISE NOTED.
16. IN THE EVENT OF DAMAGE TO UNDERGROUND FACILITIES, WHETHER SHOWN OR NOT SHOWN IN THE DRAWINGS, THE CONTRACTOR SHALL MAKE THE NECESSARY REPAIRS TO PLACE THE FACILITIES BACK IN SERVICE AT NO INCREASE IN THE CONTRACTOR'S PRICE, AND ALL SUCH REPAIRS SHALL CONFORM TO THE REQUIREMENTS OF THE COMPANY OR AGENCY SERVICING THE FACILITY.
17. THE CONTRACTOR SHALL EXERCISE EXTRA CARE TO PREVENT DAMAGE TO ALL OTHER STRUCTURES IN THE AREA INCLUDING BUILDINGS, FENCES, ROADS, PIPELINES, UTILITIES, ETC., WHETHER PUBLICLY OR PRIVATELY OWNED.
18. UNTIL ACCEPTANCE BY THE ENGINEER OF ANY PART OR ALL OF THE CONSTRUCTION, AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS, IT SHALL BE UNDER THE CHARGE AND CARE OF THE CONTRACTOR, AND HE SHALL TAKE EVERY NECESSARY PRECAUTION AGAINST INJURY OR DAMAGE TO ANY PART OF THE WORK. THE CONTRACTOR SHALL REBUILD REPAIRS, RESTORE AND MAKE GOOD, AT HIS OWN EXPENSE, ALL INJURIES OR DAMAGE TO ANY PORTION OF THE WORK BEFORE ITS COMPLETION AND ACCEPTANCE.
19. COORDINATE ALL UTILITY WORK WITH PLUMBING PLANS BEFORE COMMENCING ANY UTILITY WORK. REFER TO PLUMBING PLANS FOR CONTINUATION.
20. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY FOR ANY CONSTRUCTION DONE ON PUBLIC R.O.W. AND SHALL INCLUDE TRAFFIC CONTROL AS REQUIRED.
21. NOTICE TO CONTRACTOR: TEXAS ONE CALL SYSTEM AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT" TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM.
22. CONTRACTOR SHALL VISIT EXISTING CONDITIONS OF THE SITE.
23. CONTRACTOR SHALL IDENTIFY ALL UNDERGROUND LINES BEFORE COMMENCING WORK.CONTRACTOR SHALL ADJUST ANY ELECTRICAL LINES THAT CONFLICT WITH CONSTRUCTION OF THESE IMPROVEMENTS.

TRAFFIC CONTROL NOTE:

GUIDELINES SET FORTH IN PART IV "STANDARDS AND GUIDES FOR TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND INCIDENT MANAGEMENT OPERATIONS" OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MOST RECENT EDITION AS REVISED) SHALL BE OBSERVED.

UTILITY PLAN DETAIL NOTES

GENERAL NOTES FOR WATER CONSTRUCTION:

1. DISINFECTION OF NEW WATER MAINS SHALL BE IN CONFORMANCE WITH AWWA C601 & C651. ALL NEW WATER MAINS SHALL BE DISINFECTED BEFORE THEY ARE PLACED IN SERVICE. ALL WATER MAINS TAKEN OUT OF SERVICE FOR INSPECTING, REPAIRING OR OTHER ACTIVITY WHICH MIGHT LEAD TO CONTAMINATION OF WATER SHALL BE DISINFECTED BEFORE THEY ARE RETURNED TO SERVICE.
2. ALL WATER LINE PIPE FURNISHED SHALL MEET THE REQUIREMENTS OF AWWA C900. LATEST REVISION. HYDROSTATIC TEST SPEC. SHALL BE 150 P.S.I FOR 8 HOURS OR 180 P.S.I. FOR 4 HOURS.
3. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C110 STANDARDS..
4. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND THRUST PRESSURE. NO SEPARATE PAY.
5. WATER LINE TRENCHES INSIDE STREET RIGHT OF WAY SHALL HAVE SAND BEDDING TO THE SPRINGLINE OF THE PIPE AND THEN BACKFILLED WITH SELECT FILL IN MAX 8" LIFTS AND COMPACTED TO A MINIMUM OF 95% STD. DENSITY, AT +/-3% OF OPTIMUM MOISTURE CONTENT.
6. MAINTAIN A MINIMUM OF 18 INCHES VERTICAL CLEARANCE BETWEEN WATER LINES AND ALL OTHER UTILITIES.
7. UNLESS OTHERWISE APPROVED, ALL WATER MAINS SHALL BE PLACED A MINIMUM DEPTH OF 4'-6' BELOW TOP OF PROPOSED STREET CURBS OR 48" OF COVER ABOVE PIPE LOCATED IN STREET RIGHT OF WAY OR EASEMENTS.
8. ALL CONCRETE BLOCKING SHALL CONSIST OF 3000-P.S.I. CONCRETE.
9. ALL WORK AND MATERIAL SHALL BE SUBJECT TO CITY ENGINEERS APPROVAL DURING CONSTRUCTION AND UPON COMPLETION.
10. ALL WATER SERVICE LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING REGULATIONS.
11. TRACER WIRE SHALL BE INSTALLED ON ALL PUBLIC WATER LINES.

MANHOLE TESTING:

MANHOLES SHALL BE TESTED FOR LEAKAGE SEPARATELY AND INDEPENDENTLY OF THE WASTEWATER LINES BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING OR OTHER METHODS ACCEPTABLE TO THE COMMISSION. IF A MANHOLE FAILS A LEAK TEST, THE MANHOLE MUST BE MADE WATER TIGHT AND RETESTED. THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING SHALL BE 0.025 GALLONS PER FOOT DIAMETER PER FOOT ON MANHOLE DEPTH PER HOUR.

SEWER PIPE TESTING:

EXFILTRATION TESTS SHALL BE PERFORMED ON ALL SEWER PIPE USING LOW PRESSURE AIR TEST. THE PROCEDURE FOR THE LOW PRESSURE AIR TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-924, ASTM F-1417, OR OTHER APPROPRIATE PROCEDURES.

DEFLECTION TESTING:

DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE PIPES. FOR PIPE WITH INSIDE DIAMETERS LESS THAN 27 INCHES, A RIGID MANDREL SHALL BE USED TO MEASURE DEFLECTION. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%.

GENERAL NOTES FOR SEWER CONSTRUCTION:

1. THE TOP ELEVATION OF MANHOLES AND CLEANOUTS CONSTRUCTED IN PAVED AREAS SHALL MATCHED FINISHED PAVEMENT GRADE. THE TOP ELEVATION OF MANHOLES CONSTRUCTED IN GRASSED AREAS SHALL BE SIX (6) INCHES ABOVE FINISHED GRADE (UNLESS OTHERWISE NOTED).
2. SEWER PIPE DIAMETERS AND MATERIAL SHALL BE AS INDICATED ON PLANS AND SPECIFICATIONS.
3. IN THE EVENT PLANS OR STANDARD DETAILS CONFLICT WITH THE CITY PLUMBING ORDINANCES, CITY ORDINANCES SHALL CONTROL AND BE ADHERED TO IN ALL CASES.
4. CONTRACTOR MUST BE LICENSED AND BONDED BY THE CITY.
5. PIPE SHALL BE BURIED A MINIMUM OF 4'.
6. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE.
7. REPAIR OF ALL EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL MAKE EVERY EFFORT POSSIBLE TO MINIMIZE THE DISTURBANCE OF ALL EXISTING SHRUBS, LAWNS, AND OTHER LANDSCAPING FEATURES AND SHALL COORDINATE REMOVAL OF TREES WITH OWNERS OR ENGINEER.
9. PLUGS BETWEEN THE EXISTING AND PROPOSED SYSTEM SHALL BE REMOVED ONLY WHEN THE PROPOSED SANITARY SEWERS HAVE BEEN COMPLETED, TESTED AND ACCEPTED. NO PLUG SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
10. SEWER SERVICE SHALL BE MAINTAINED TO ALL RESIDENCES AT ALL TIMES. IF FOR ANY REASON, THE CONTRACTOR NEEDS TO INTERRUPT SERVICE, HE SHALL FIRST OBTAIN APPROVAL FROM ENGINEER.
11. ALL CUT & PLUG OF SEWER LINES SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS. NO SEPARATE PAY WILL BE ALLOWED.
12. WHENEVER SANITARY SEWER CROSSES WITHIN 10 FEET ABOVE OR BELOW A WATER LINE, THE SANITARY SEWER SHALL BE CONSTRUCTED OF D.I., CLASS 50, PRESSURE PIPE OR AWWA C900 PVC FOR A MINIMUM DISTANCE OF 10 FEET ON EITHER SIDE OF THE WATER LINE.
13. ALL SANITARY SEWER MAINS SHALL BE SDR-26 PVC WITH 4' MINIMUM BURY, PIPE PER THE CITY REQUIREMENTS.
14. P.V.C. PIPE SHALL HAVE BELL AND SPIGOT JOINTS. NO CHEMICALLY WELDED JOINTS SHALL BE PERMITTED.
15. GRADES FOR SEWER MAINS MAY BE VARIED FROM ELEVATIONS INDICATED ON THE PLANS ONLY ON THE DIRECTION AND APPROVAL OF THE OWNER OR HIS AUTHORIZED REPRESENTATIVE, AND BY THE CITY.
16. ALL UTILITIES MAY BE OPEN-CUT UNLESS SPECIFICALLY NOTED OTHERWISE. REPAIR OF ALL EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
17. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE LINED.

STORM SEWER PLAN NOTES

STORM SEWER NOTES:

1. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT SIZE, NUMBER AND LOCATION OF ALL ROOF DRAINS.
2. IF THE CONTRACTOR RELOCATES BENCHMARK WITH A NEW BENCHMARK, IT SHALL BE LOCATED WITHIN A TOLERANCE OF 0.10'.
3. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND BE CONSTRUCTED TO SAME.
4. SEE SPECIFICATIONS FOR BACKFILLING AND COMPACTION REQUIREMENTS OF STORM SEWER TRENCHES.
5. ALL PIPES ENTERING STORM SEWER STRUCTURES SHALL BE GROUTED WITH NON-SHRINK GROUT TO ASSURE A WATERTIGHT FIT.
6. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING LIDS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISHED GRADE. LIDS SHALL BE LABELED "STORM SEWER".
7. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS OUTLINED IN THE T.P.D.E.S. PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING SWPPP AND REQUIRED PERMITS.
8. CONTRACTOR SHALL UTILIZE PREFABRICATED BENDS, FIELD FABRICATED BENDS OR RADIUS PIPE TO ACCOUNT FOR DEFLECTIONS IN STORM SEWER PIPE WHERE SHOWN HEREON.
9. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
10. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED TO REMOVE ALL SILT AND DEBRIS.
11. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
12. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR FROM INVERT IN TO INVERT OUT.
13. REINFORCED CONCRETE PIPE SHALL BE CLIII RUBBER GASKET

GRADING PLAN NOTES

GENERAL GRADING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
2. ALL CUT OR FILL SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE SMOOTH FIT AND CONTINUOUS GRADE.
4. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
5. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPED 3:1 OR STEEPER.
6. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
7. STRIP THE TOP 6" OF TOPSOIL AND VEGETATION FROM PROPOSED PAVING AND SIDEWALKS. STRIPPED TOPSOIL MAY BE STOCKPILED AND USED FOR FILL IN LANDSCAPE AND LAWN AREAS PROVIDED IT IS FREE OF ROCKS AND TRASH.
8. FILL BELOW PROPOSED PAVEMENT AREAS MAY BE SELECT FILL WITH PLASTICITY INDEX RANGING FROM 5-17%.
9. ALL SIDEWALKS SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT. ELEVATIONS OF TOP OF CURB NEAR BUILDING ASSUME 1/4" PER FOOT SLOPE ACROSS COVERED ENTRY AND SIDEWALK.
10. EXPANSION JOINTS TO BE PLACED WHERE BUILDING FOUNDATION MEETS CONCRETE PAVEMENT OR SIDEWALK.
11. ALL REQUIRED SELECT FILL TO BE PLACED IN 6" LIFTS WITH COMPACTION TO 95% PROCTOR.
12. ALL CURB AND GUTTER TO BE BACKFILLED AND STABILIZED AS REQUIRED.
13. ALL GRADING TO BE ESTABLISHED TO PROVIDE SURFACE TO DRAINAGE.
14. ALL OBSTRUCTIONS BUILDINGS, POLES, WIRES, SLABS, FENCING, OR GUARD RAILS CONFLICTING WITH THE PROPOSED IMPROVEMENTS TO BE REMOVED, RELOCATED AND OR DISPOSED OF BY CONTRACTOR AS PER ENGINEERS WRITTEN INSTRUCTIONS.
15. HANDICAP SIGNAGE TO CONFORM WITH FEDERAL REGULATIONS (A.D.A.).
16. CONTRACTOR TO INCLUDE ALL STRIPING FOR PARKING LOTS, STREETS & ROADWAYS.
17. CIVIL ENGINEER WILL NOT PROVIDE CONSTRUCTION STAKING ON (ON-SITE) IMPROVEMENTS.
18. CONTRACTOR TO GRADE SWALES AS REQUIRED FROM SIDEWALK DRAINAGE OPENINGS, FIRE LANES, CULVERTS AND CURB SLOTS TO INLETS.
19. CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL THROUGHOUT THE DURATION OF THE CONSTRUCTION.
20. CONTRACTOR SHALL PROVIDE SWPPP AS PART OF PERMITTING PROCESS.

GENERAL NOTES

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PALMER PAVILION RENOVATION
Mc ALLEN, TEXAS USA

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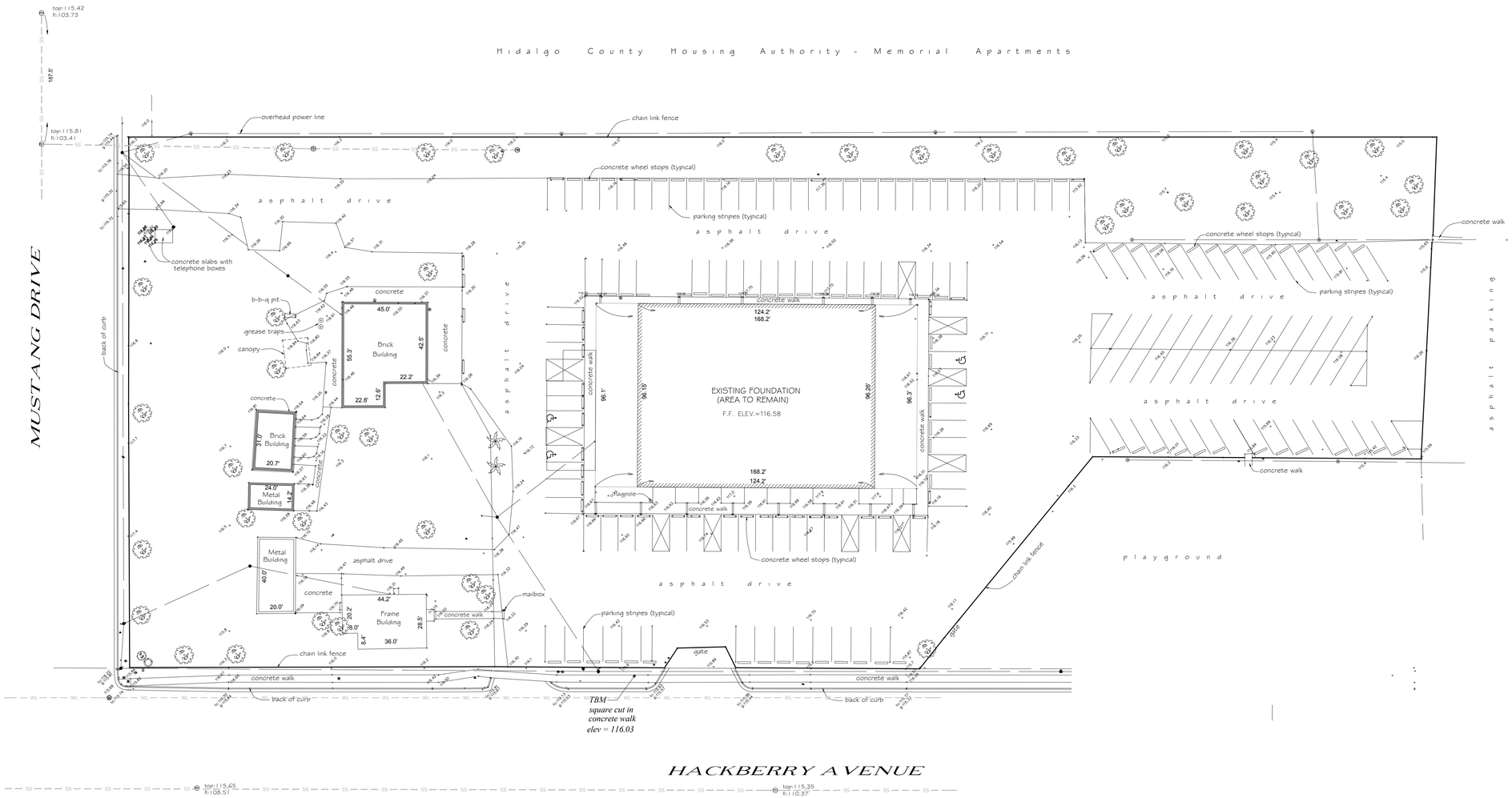
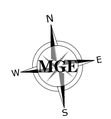


LEGEND	
●	FD. 1/2 INCH IRON ROD
○	SET 1/2 INCH IRON ROD
	FD. 60-D NAIL
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING GUY WIRE
T	EXISTING TEL. PEDESTAL
	EXISTING TRAFFIC SIGN
W	EXISTING WATER METER
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
O	EXISTING CURB INLET
S	EXISTING SANITARY SEWER MANHOLE
WL	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
ST	EXISTING STORM SEWER LINE

BENCH MARK INFORMATION
BENCH MARK IS FOUND ON HACKBERRY AVE. SQUARE CUT ON CONCRETE SIDEWALK ELEVATION OF 116.03



EXISTING CONDITION
SCALE: 1"= 30"

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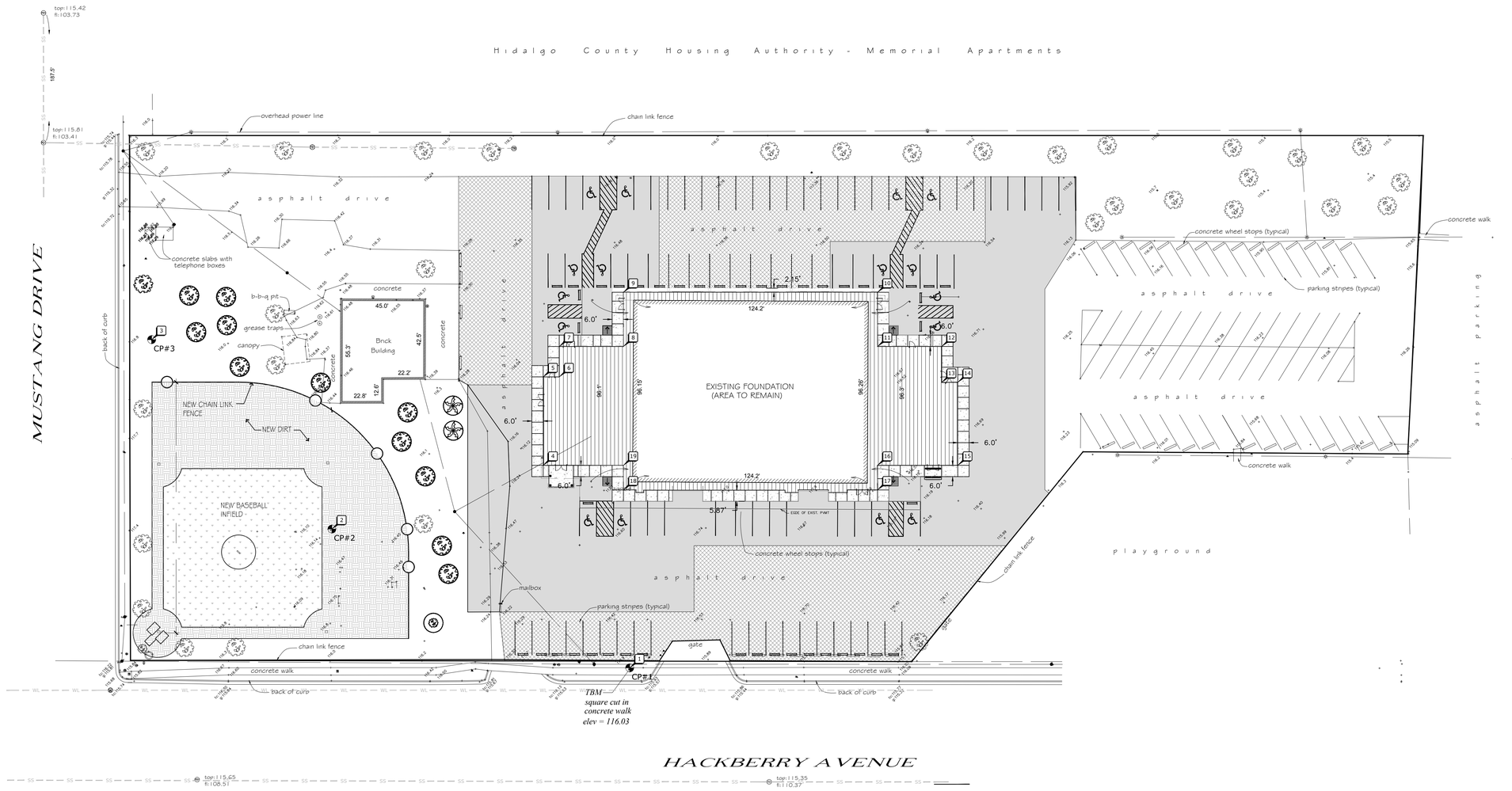
PALMER PAVILION RENOVATION

Mc ALLEN, TEXAS USA

Hidalgo County Housing Authority - Memorial Apartments



LEGEND	
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	EXISTING LIGHT POLE
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S	EXISTING SANITARY SEWER MANHOLE
WL	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
ST	EXISTING STORM SEWER LINE
	PROPOSED SIDEWALK
	PROPOSED BUILDING
	PROPOSED DI-1 LIGHT DUTY (H.M.A.C.)
	PROPOSED FOG SEAL

BENCH MARK INFORMATION

BENCH MARK IS FOUND ON HACKBERRY AVE. SQUARE CUT ON CONCRETE SIDEWALK ELEVATION OF 116.03

BUILDING CORNER COORDINATES

Point Report

Number	Northing (ft)	Easting (ft)	Elev (ft)	Description
1	16601441.45	1077807.77	116.03	CP1 SC 173
2	16601537.74	1077662.93	116.17	CP2 60DN 172
3	16601651.2	1077583.62	116.26	CP3 60DN 171
4	16601554.38	1077778.576	116.58	NEWBLDGCOR
5	16601600.69	1077785.591	116.58	NEWBLDGCOR
6	16601599.41	1077793.995	116.58	NEWBLDGCOR
7	16601615.32	1077796.404	116.58	NEWBLDGCOR
8	16601610.23	1077829.979	116.58	NEWBLDGCOR
9	16601638.61	1077834.279	116.58	NEWBLDGCOR
10	16601618.47	1077967.261	116.58	NEWBLDGCOR
11	16601590.08	1077962.961	116.58	NEWBLDGCOR
12	16601585	1077996.537	116.58	NEWBLDGCOR
13	16601566.21	1077993.691	116.58	NEWBLDGCOR
14	16601564.94	1078002.095	116.58	NEWBLDGCOR
15	16601521.52	1077995.517	116.58	NEWBLDGCOR
16	16601527.88	1077953.538	116.58	NEWBLDGCOR
17	16601514.98	1077951.584	116.58	NEWBLDGCOR
18	16601535.13	1077818.602	116.58	NEWBLDGCOR
19	16601548.02	1077820.555	116.58	NEWBLDGCOR

N
W MGE E
S

SITE PLAN

SCALE: 1" = 30"

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SITE PLAN

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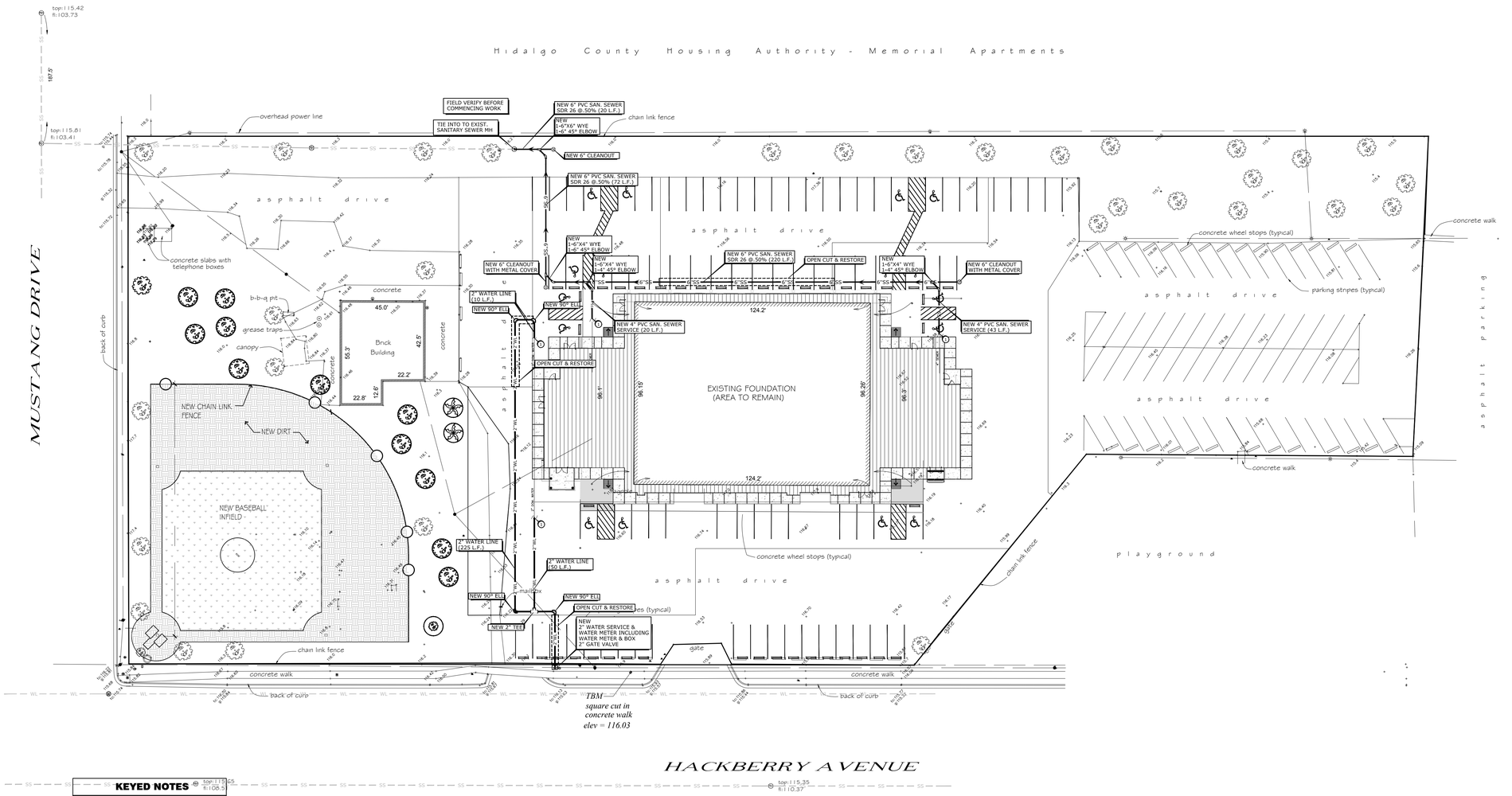

KEYED NOTES

1. REFER TO PLUMBING PLANS FOR CONTINUATION

NOTE:
CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO PERFORMING CONNECTIONS.

LEGEND

- FD. 1/2 INCH IRON ROD
- SET 1/2 INCH IRON ROD
- FD. 60-D NAIL
- EXISTING LIGHT POLE
- EXISTING POWER POLE
- EXISTING GUY WIRE
- EXISTING TEL. PEDESTAL
- EXISTING TRAFFIC SIGN
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING CURB INLET
- EXISTING SANITARY SEWER MANHOLE
- WL — EXISTING WATER LINE
- SS — EXISTING SANITARY SEWER LINE
- ST — EXISTING STORM SEWER LINE

UTILITY LAYOUT

SCALE: 1"= 30"

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PALMER PAVILION RENOVATION

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UTILITY LAYOUT

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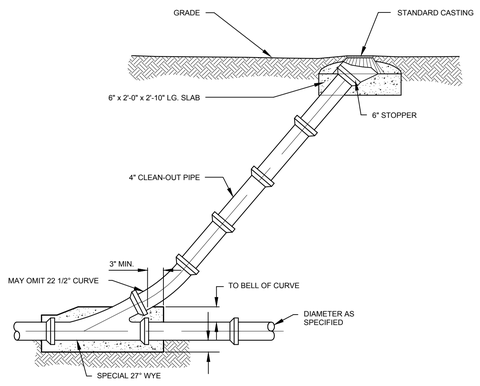
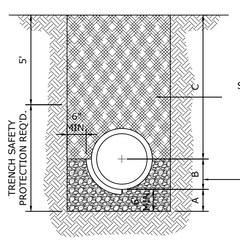


STANDARD CLEANOUT | 7

NOTE:
1. ALL EXISTING STREET CROSSINGS SHALL REQUIRE SAND BACKFILL OF ENTIRE TRENCH.
2. WHEN UTILITY LOCATED WITHIN CITY R.O.W., ALL BACKFILL IS SUBJECT TO INSPECTION, TESTING AND APPROVAL BY THE CITY ENGINEER'S OFFICE

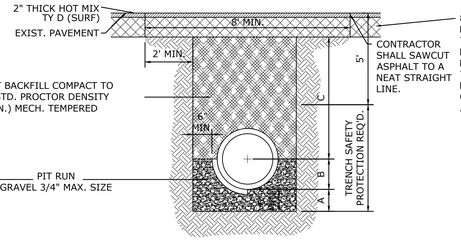


STANDARD PIPE BEDDING

A. GRAVEL (3/4" MAX. SIZE) BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE. (MIN. THICKNESS = 6")
B. GRAVEL BACK FILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE. (4" LIFTS, MECH. TAMPED).
C. FILL TRENCH W/SELECT BACKFILL (PI<20), W/12" LIFTS COMPACT TO 95% STD. PROCTOR

FOUNDATION PREPARATION (WELLPOINTS, GRAVEL AND/OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.

BACK FILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE THICKNESS OF EACH LOOSE LAYER SHALL BE SAND, APPROVED SITE SOIL OR OTHER APPROVED SUBSTITUTE.



STANDARD PIPE BEDDING

UNDER EXISTING PAVEMENT OR PROP. PAVEMENT

A. GRAVEL (3/4" MAX. SIZE) BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE. (MIN. THICKNESS = 6")
B. GRAVEL BACK FILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE. (4" LIFTS, MECH. TAMPED).
C. FILL TRENCH W/SELECT BACKFILL (PI<20), W/12" LIFTS COMPACT TO 95% STD. PROCTOR

FOUNDATION PREPARATION (WELLPOINTS, GRAVEL AND/OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.

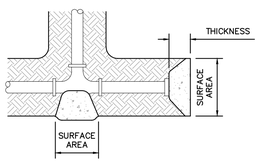
BACK FILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE THICKNESS OF EACH LOOSE LAYER SHALL BE SAND, APPROVED SITE SOIL OR OTHER APPROVED SUBSTITUTE.

STANDARD PIPE BEDDING | 3

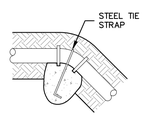
NOT USED | 2

THRUST BLOCK SIZE			
HORIZONTAL BENDS			
DIAMETER OF PIPE IN INCHES	SURFACE AREA SQ. FT.	THICKNESS IN INCHES	WEIGHT AT VERTICAL BENDS–LBS.
22-1/2° BENDS			
6 OR LESS	2	8	1,700
8	3	12	3,000
10	3.5	12	4,500
12	4	14	6,600
14	5	18	9,000
16	6	18	11,800
45° BEND			
6 OR LESS	4	12	3,200
8	5	14	5,800
10	6	18	9,000
12	7	18	13,000
14	8	24	17,000
16	11.5	24	23,200
90° BEND			
6 OR LESS	6	12	6,000
8	8	15	10,700
10	10	18	16,700
12	12	18	24,000
14	18	24	32,600
16	21	24	42,700
TEES & DEAD ENDS			
6 OR LESS	3	12	--
8	4	15	--
10	6	18	--
12	8.5	18	--
14	11.5	24	--
16	15	24	--

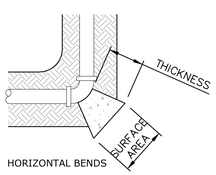
NOTE:
ALL VALUES SHOWN ARE MIN. FOR A HYDROSTATIC PRESSURE OF 150 P.S.I. AND A SOIL RESISTANCE OF 2,000 LBS. PER SQ./FT. WITH PIPELINE HAVING A MIN. OF 3 FT. OF COVER WITH CURB & GUTTER AND A 5 FT. MIN. WITHOUT CURB & GUTTER



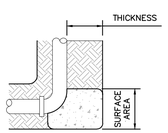
TEES & DEAD ENDS



VERTICAL BENDS



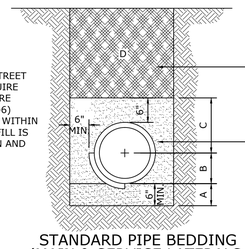
HORIZONTAL BENDS



HYDRANT BURYS

THRUST BLOCKS DETAILS | 8

NOTE:
1. ALL EXISTING/ACTIVE STREET CROSSINGS SHALL REQUIRE SAND BACKFILL OF ENTIRE TRENCH. (SEE DETAIL S-6)
2. WHEN UTILITY LOCATED WITHIN CITY R.O.W., ALL BACK FILL IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY ENGINEER'S OFFICE

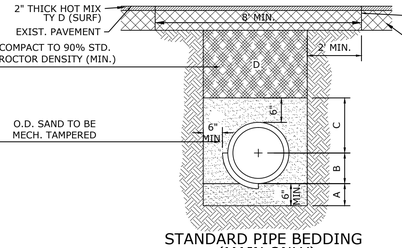


STANDARD PIPE BEDDING (MAIN & SERVICE LATERALS)

APPLICABLE BENEATH FUTURE/UNPAVED STREETS

A. SAND BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE. (MIN. THICKNESS = 6")
B. SAND BACK FILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE. (4" LIFTS, MECH. TAMPED).
C. SAND BACK FILL PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE. (6" LIFTS, MECH. TAMPED).
D. FILL TRENCH W/SELECT BACKFILL, W/12" LIFTS COMPACT TO 90% STD. PROCTOR.

FOUNDATION PREPARATION (WELL POINTS, GRAVEL OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.
BACK FILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
THE THICKNESS OF EACH LOOSE LAYER SHALL BE SAND, APPROVED SITE SOIL OR OTHER APPROVED SUBSTITUTE.



STANDARD PIPE BEDDING (MAIN ONLY)

(PARALLEL WITHIN EXIST. STREET)

A. SAND BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE. (MIN. THICKNESS = 6")
B. SAND BACK FILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE. (4" LIFTS, MECH. TAMPED).
C. SAND BACK FILL PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE. (6" LIFTS, MECH. TAMPED).
D. FILL TRENCH W/SELECT BACKFILL, W/12" LIFTS COMPACT TO 90% STD. PROCTOR.

FOUNDATION PREPARATION (WELL POINTS, GRAVEL OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.
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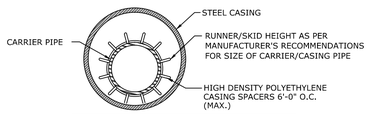
THE THICKNESS OF EACH LOOSE LAYER SHALL BE SAND, APPROVED SITE SOIL OR OTHER APPROVED SUBSTITUTE.

SEWER STANDARD PIPE BEDDING | 4

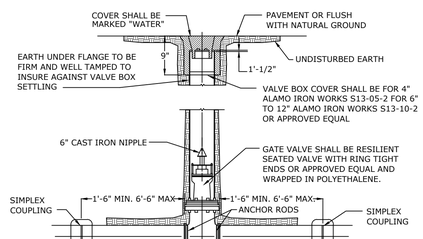
NOT USED | 6



BORING INSTALLATION		
CARRIER PIPE SIZE	PIPE CASING SIZE	MIN. WALL THICKNESS
6"	14"	0.3125"
8"	16"	0.3125"
10"	18"	0.3125"
12"	21"	0.3750"
14", 15"	24"	0.4375"
16"	26"	0.4375"
18"	30"	0.5000"
24"	36"	0.5625"
36"	48"	0.6250"

GENERAL NOTES:
1. ALL STEEL CASING SHALL BE WELDED.
2. STEEL CASING SHALL BE CLOSED AT EACH END USING USING SYNTHETIC RUBBER END SEALS.
3. CASING SPACERS SHALL BE USED TO INSTALL THE CARRIER PIPE INSIDE THE ENCASEMENT PIPE. CASING SPACERS SHALL FASTEN TIGHTLY ON THE CARRIER PIPE TO PREVENT RELATIVE MOVEMENT ON PIPE DURING INSTALLATION. CASING SPACERS SHALL BE DOUBLED ON EACH END OF THE ENCASEMENT.
4. PROJECTION TYPE CASING SPACERS SHALL BE CONSTRUCTED SECTIONS OF HIGH DENSITY POLYETHYLENE.
5. INSTALLATION AND SIZE OF SPACERS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

UTILITY LINE BORE DETAIL | 5



NOTES:
1. CAST IRON BOOT TO BE USED IN HEAVY TRAFFIC AREAS CONCRETE BLOCK (POURED IN PLACE)

TYPICAL VALVE & VALVE BOX | 1

UTILITY DETAILS

NOT TO SCALE

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(956) 212-4930
info@samgarciaarchitect.com

PALMER PAVILION RENOVATION
McALLEN, TEXAS USA

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JOB #:	16–221
PHASE:	100% CD
DATE:	09.09.2016
DRAWN BY:	MGG
CHECKED BY:	MG

UTILITY DETAILS

C4.1

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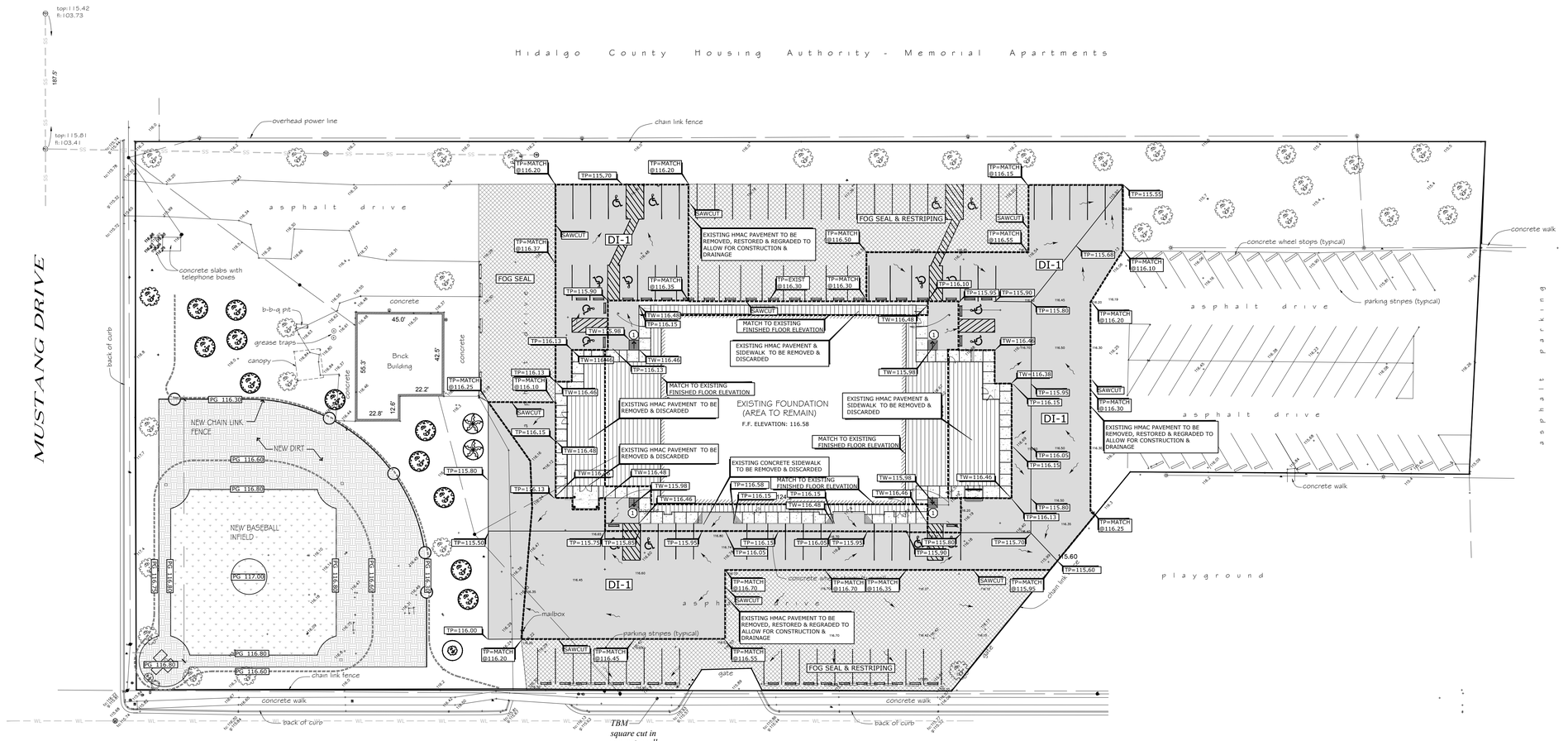
TBPE FIRM REG. NUMBER F - 9 8 2 8

STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED
PROFESSIONAL ENGINEER
09/09/16 P.E.

Hidalgo County Housing Authority - Memorial Apartments



KEYED NOTES	
1	NEW ADA RAMPS
DI-1	LIGHT-DUTY TRAFFIC AREA

LEGEND	
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING GUY WIRE
T	EXISTING TEL. PEDESTAL
	EXISTING TRAFFIC SIGN
W	EXISTING WATER METER
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING CLEAN OUT
	EXISTING TREE
S	EXISTING SANITARY SEWER MANHOLE
D	EXISTING STORM SEWER MANHOLE
WL	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
ST	EXISTING STORM SEWER LINE
	NEW ASPHALT PAVEMENT
	NEW CONCRETE SIDEWALK
	NEW CONCRETE DRIVE
TC=100.00	NEW TOP OF CURB ELEVATION
TW=100.00	NEW TOP OF WALK ELEVATION
TP=100.00	NEW TOP OF PAVEMENT
	NEW DIRECTION OF RUN-OFF

NOTES:

1. Contractor shall be responsible for clearing & grubbing of proposed site.
2. Contractor shall field verify all existing utilities prior to any construction.
3. Existing hmac pavement to be removed and discarded. replace with new at proposed grades. refer to light-duty hmac pavement for new section.
4. Geotechnical report shall be considered a part of the construction documents. Contractor to review and comply with all earthwork and grading requirements in the geotechnical report.
5. Fog seal shall conform to txdot 2014 standard specifications for construction and maintenance of highways, streets and bridges, item 315
6. Seal coat shall conform to txdot 2014 standard specifications for construction and maintenance of highways, streets and bridges, item 316

N
W MGE E
S

PAVING & GRADING LAYOUT

SCALE: 1" = 30"

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PALMER PAVILION RENOVATION

Mc ALLEN, TEXAS USA

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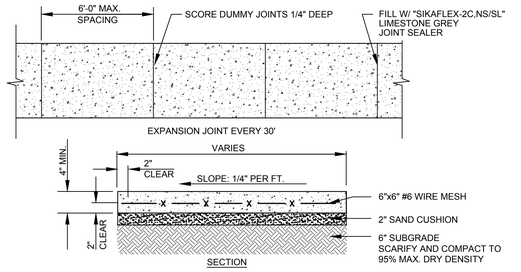
CHECKED BY:	MG

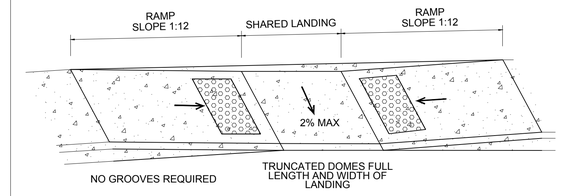
PAVING & GRADING

C5.0



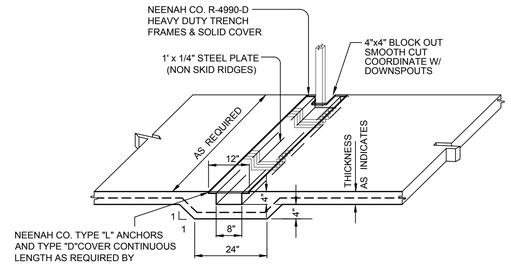
SIDEWALK NOTES:
1. MINIMUM 5'-0" WIDE SIDEWALK.
2. SIDEWALK GRADIENT SHALL NOT EXCEED 1:20.
3. SIDEWALK CONCRETE SHALL BE 5 SACK CEMENT MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi.
4. CONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF EXISTING UTILITY LINES WITH APPROPRIATE COMPANIES TO AVOID PLACING SIDEWALKS ON TOP OF LINES.
5. PROVIDE DROP CURBS AT INTERSECTIONS.
6. CONTRACTOR SHALL COMPLY WITH LATEST REGULATIONS AS SET FORTH IN AMERICANS WITH DISABILITIES ACT (ADA).
7. WHERE ADJACENT TO PAVEMENT, PROVIDE A THICKENED EDGE 8 (EIGHT) INCHES DEEP AND 6 (SIX) INCHES WIDE REINFORCED WITH NO. 3 REBAR.
8. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALK MEETS NEW AND EXISTING BUILDING.

SIDEWALK DETAILS | 9

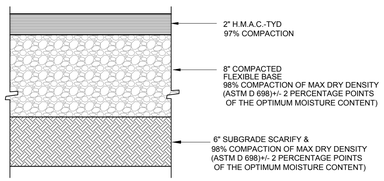


GENERAL NOTES:
1. WHEELCHAIR RAMPS ARE TO BE LOCATED AT CROSSWALK AREAS DESIGNATED ON THE PLAN.
2. SURFACE TEXTURE OF WHEELCHAIR RAMP SHALL BE OBTAINED BY TOOL FINISH TRAVERSE TO THE SLOPE OF THE RAMP.
3. SLOPES SHALL BE UNIFORM WITH NO ABRUPT CHANGES IN GRADES, NORMAL GUTTER LINE PROFILE SHOULD BE MAINTAINED THROUGH THE AREA OF THE RAMP.
4. WHEELCHAIR RAMPS SHALL BE MEASURED AND PAINTED AS CONCRETE SIDEWALK AND CONCRETE CURB AND GUTTER, AS APPLICABLE.
5. CONCRETE RAMP SHALL BE 5 SACK MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I.
6. ALL CONCRETE WORK SHALL BE TREATED WITH THE MEMBRANECURING COMPOUND AFTER SURFACE TEXTURE HAS BEEN COMPLETED.
7. 6" X 6" NO. 6 WIRE MESH SHALL BE USED FOR REINFORCING.
8. ALL RAMPS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, DARK VERSUS LIGHT. THE MATERIAL USED TO PROVIDE THE CONTRAST SHALL BE AN INTEGRAL PART OF THE RAMP.

SIDEWALK RAMP | 4



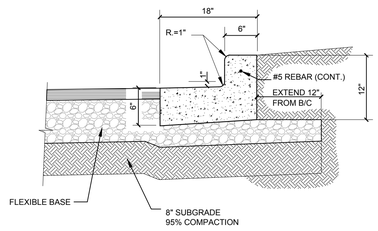
SIDEWALK OPENING DETAIL | 3



NOTE:
HMAC SHALL CONFORM TO TXDOT 2014 STANDARD SPECIFICATIONS FOR DENSE GRADED HOT MIX ASPHALT, ITEM 340, TY D

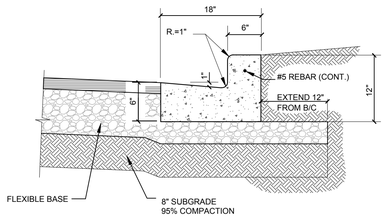
A GRAVEL BASE MATERIAL SUCH AS CALICHE MAY BE USED AS AN ALTERNATE, AND SHALL CONFORM TO TXDOT 2014 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 247, TY E, GRADE 3 OR BETTER

LIGHT DUTY H.M.A.C. DI-1 | 8



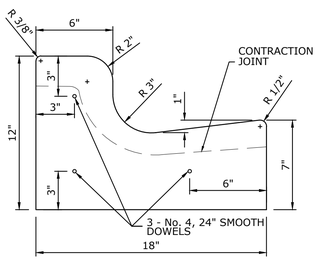
NOTE:
TRANSVERSE CONCRETE JOINTS SHALL BE CONSTRUCTED THROUGH TO BACK OF ALL CURBS

CURB & GUTTER SPILL-OUT | 5



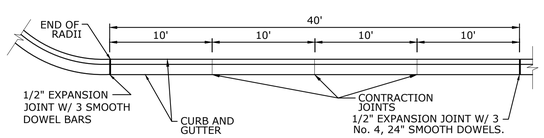
NOTE:
TRANSVERSE CONCRETE JOINTS SHALL BE CONSTRUCTED THROUGH TO BACK OF ALL CURBS

CURB & GUTTER | 2



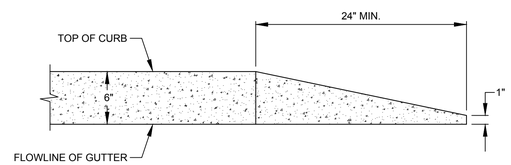
GENERAL NOTES:

1. CONCRETE SHALL BE 3000 P.S.I. COMPRESSIVE STRENGTH AT 28 DAY.
2. ALL CONCRETE WORK SHALL BE TREATED WITH MEMBRANE CURING COMPOUND TYPE 2 WHITE PIGMENTED IN ACCORDANCE w/ TEXAS DEPARTMENT OF TRANSPORTATION DEPARTMENTAL MATERIALS SPECIFICATION ITEM 4650. CONSIDERED INCIDENTAL TO CONCRETE WORK.
3. 1/2" EXPANSION JOINTS REQUIRED AT 40' c.c. AND AT THE BEGINNING AND END OF ALL RADII. CONTRACTION JOINTS SHALL NOT EXCEED 10' c.c.
4. EXPANSION JOINTS SHALL HAVE 1/2 EXPANSION JOINT MATERIAL, AND 3 No. 4, 24" SMOOTH DOWEL BARS COATED TO PREVENT BOND.



CURB (SLOPED END) | 7

NOT USED | 6



CURB & GUTTER DETAIL | 1

PAVING & GRADING DETAILS

NOT TO SCALE

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CHECKED BY:	MG

PAVING & GRADING DETAILS

C5.1

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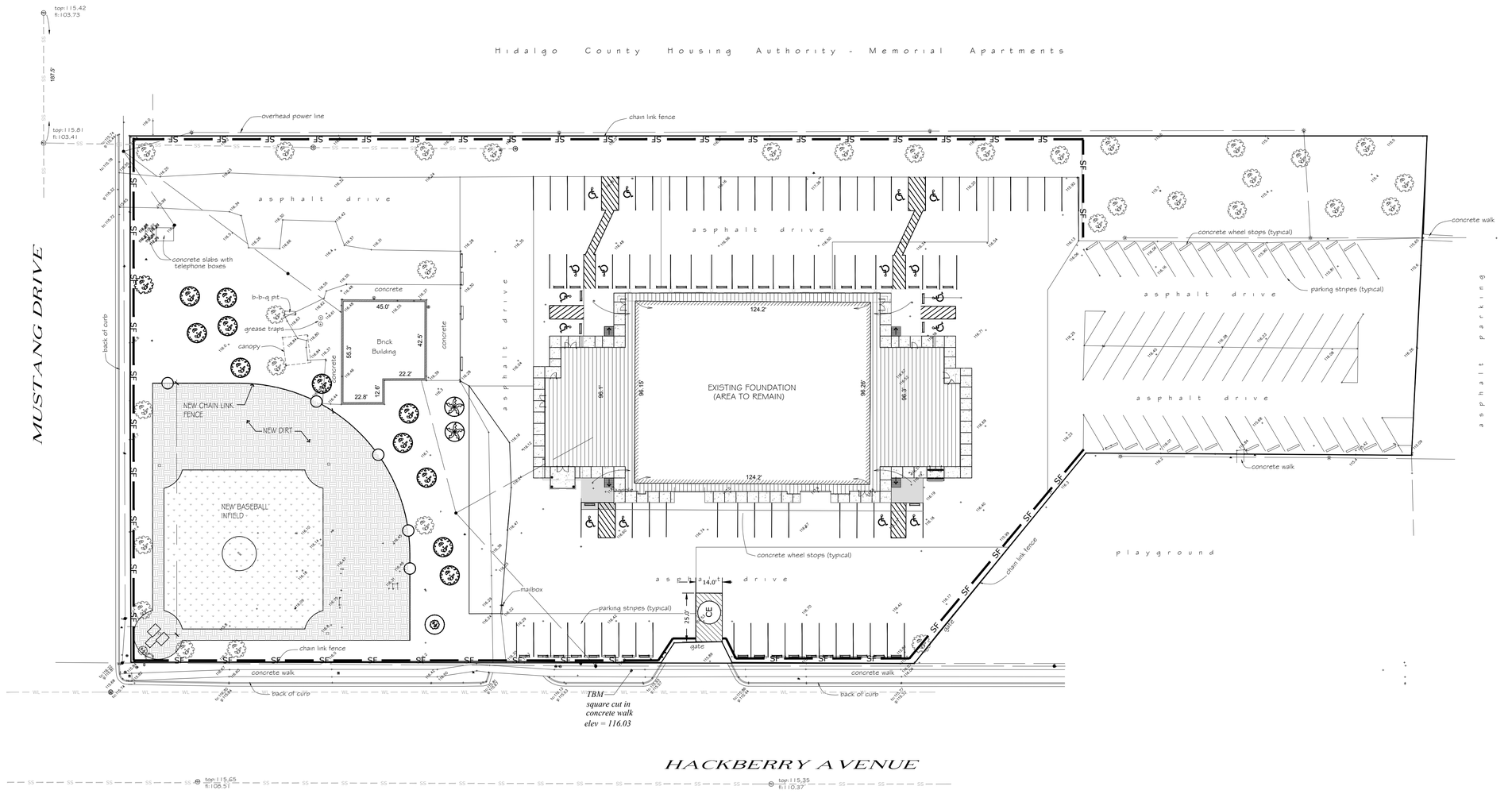

LEGEND	
●	FD. 1/2 INCH IRON ROD
○	SET 1/2 INCH IRON ROD
	FD. 60-D NAIL
	EXISTING LIGHT POLE
⌀	EXISTING POWER POLE
←	EXISTING GUY WIRE
T	EXISTING TEL. PEDESTAL
	EXISTING TRAFFIC SIGN
W	EXISTING WATER METER
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING CURB INLET
S	EXISTING SANITARY SEWER MANHOLE
WL	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
ST	EXISTING STORM SEWER LINE

LEGEND	
●	FD. 1/2 INCH IRON ROD
○	SET 1/2 INCH IRON ROD
⌀	EXISTING POWER POLE
SF	SEDIMENT CONTROL FENCE
CE	CONSTRUCTION ENTRANCE

N
W MGE E
S

EROSION & SEDIMENT CONTROL

SCALE: 1"= 30"

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PALMER PAVILION RENOVATION

Mc ALLEN, TEXAS USA

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JOB #:	16-221
PHASE:	100% CD
DATE:	09.09.2016
DRAWN BY:	MGG
CHECKED BY:	MG

EROSION & SEDIMENT CONTROL

C6.0

M.GARCIA ENGINEERING
MGE
CIVIL ENGINEERING
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McALLEN, TEXAS 78504
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WWW.MGARCIAENGINEERING.COM
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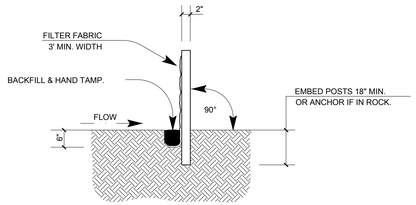
STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED
PROFESSIONAL ENGINEER
09/09/16 P.E.



SECTION A-A

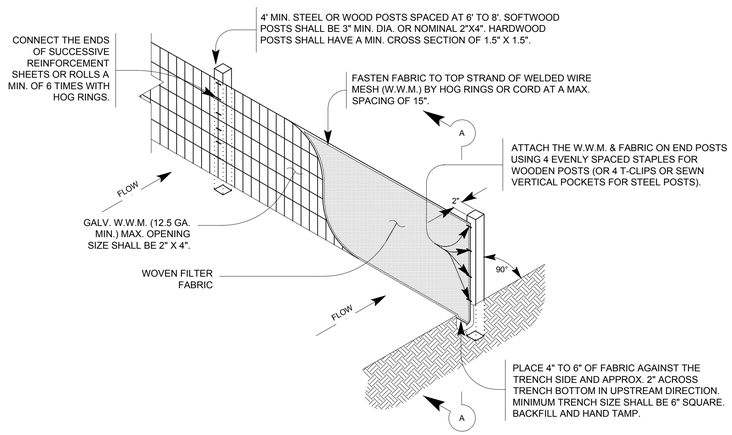
SEDIMENT CONTROL FENCE USAGE GUIDELINES

A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2-YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

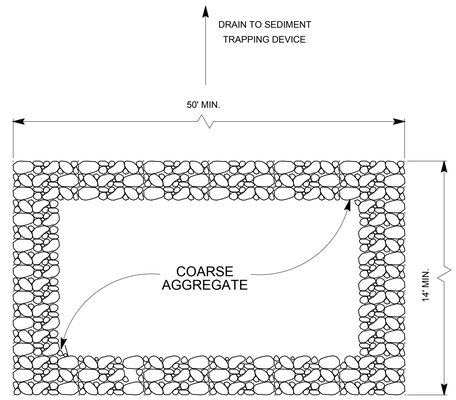
SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 100 GPM/FT . SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN TWO ACRES.

GENERAL NOTES :

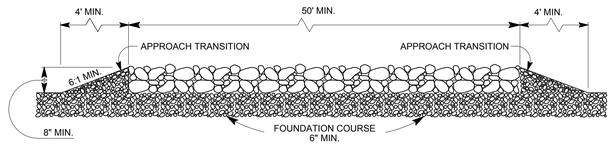
1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



TEMPORARY SEDIMENT CONTROL FENCE



PLAN



PROFILE

GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT (TYPE 1)

EROSION & SEDIMENT

EROSION & SEDIMENT CONTROL DETAILS

NOT TO SCALE

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EROSION & SEDIMENT CONTROL DETAILS

C6.1

GENERAL NOTES

GENERAL

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR THE EARTH BANKS, FORMS, SCAFFOLDING, PLANNING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES, GIN POLES, ETC. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

2. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.

3. EQUIPMENT FRAMING LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO HVAC, PLUMBING, OR ELECTRICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. EXACT WEIGHTS AND LOCATIONS OF MECHANICAL EQUIPMENT SHALL BE COORDINATED BY CONTRACTOR. IF THE FINAL LOCATION VARIES FROM THAT SHOWN ON THE PLANS, CONTRACTOR TO NOTIFY ARCHITECT AND ENGINEER FOR APPROVAL BEFORE INSTALLATION.

4. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.

5. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL BE RESPONSIBLE FOR CONDITIONS OF ALL WORK AND MATERIALS.

6. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS AND ELEVATIONS. CONTRACTOR SHALL REPORT ANY DISCREPANCIES IN WRITING TO THE ARCHITECT. ANY CONFLICT BETWEEN THE DRAWING AND SPECIFICATIONS OF THE VARIOUS TRADES INVOLVED SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER.

7. DETAILS SHOWN ON DRAWINGS APPLY AT SIMILAR CONDITIONS.

8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL STANDARDS AND TO ALL APPLICABLE PROVISIONS OF THE GOVERNING BUILDING CODE.

9. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED IN WRITING WHEN WORK COMMENCES.

10. CONTRACTOR SUBSTITUTIONS: ANY MATERIALS OR PRODUCTS THAT ARE SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIALS OR PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS WILL ONLY BE CONSIDERED IF THE FOLLOWING CRITERIA ARE SATISFIED.
    A) A COST SAVING TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST
    B) THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO) AND THE ICBO REPORT IS SUBMITTED WITH THE REQUEST.

STRUCTURAL OBSERVATION

1. THE PROFESSIONAL ENGINEER OR HIS/HER AUTHORIZED REPRESENTATIVE SHALL CONDUCT ALL STRUCTURAL OBSERVATIONS. STRUCTURAL OBSERVATIONS SHALL BE FOR THE PURPOSE OF ASCERTAINING GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. HOWEVER, SUCH OBSERVATION VISITS SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATIONS AND RESPONSIBILITIES TO THE CONSTRUCTION DOCUMENTS.

2. ITEMS THAT REQUIRE A STRUCTURAL OBSERVATION ARE AS FOLLOWS:
    A. STEEL REINFORCEMENT IN SLAB OR FOUNDATION
    B. FRAMING OF ROOF STRUCTURE BEFORE METAL DECKING IS INSTALLED
    C. METAL DECKING INSTALLATION
    D. CMU WALL REINFORCING BEFORE FILLING WITH GROUT

3. NOTIFY ENGINEER 24 HOURS IN ADVANCE WHEN A STRUCTURAL OBSERVATION IS REQUIRED.

4. WORK SHALL NOT CONTINUE AT THESE AREAS UNTIL OBSERVATION AND APPROVAL BY ENGINEER. FAILURE BY THE CONTRACTOR TO PROVIDE PROPER NOTICE FOR AN OBSERVATION VISIT AT THE REQUIRED TIME OR ADDITIONAL WORK PERFORMED WITHOUT AN OBSERVATION VISIT WILL BE DONE AT CONTRACTOR'S RISK AND MAY BE SUBJECT TO COMPLETE OR PARTIAL REMOVAL TO VERIFY COMPLIANCE OF PREVIOUS WORK.

DESIGN CRITERIA

1. DESIGN LOADS, STRUCTURAL ANALYSIS AND PREPARATION OF STRUCTURAL MEMBERS ARE BASED ON THE FOLLOWING CRITERIA:

2. CODE: ..... IBC 2012

3. VERTICAL LOADS
    A. ROOF DEAD LOAD (BUILT-UP ROOF): ..... 25 PSF
    B. ROOF DEAD LOAD (PRE-ENGINEERED BUILDING): ..... STRUCTURE SELF WEIGHT +3PSF
    C. COLLATERAL LOAD (PRE-ENGINEERED BUILDING): ..... 10 PSF
    D. ROOF LIVE LOAD(REDUCIBLE) : ..... 20 PSF
    E. UPLIFT LOAD ..... SEE ROOF UPLIFT PLAN

    K. MECHANICAL LOAD:
    THE GENERAL CONTRACTOR SHALL SUBMIT ACTUAL WEIGHTS AND LOCATIONS OF EQUIPMENT TO BE USED IN THE PROJECT TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF LOADS USED IN THE DESIGN AT LEAST TWO WEEKS PRIOR TO FABRICATION AND CONSTRUCTION OF THE SUPPORTING STRUCTURE.

4. LATERAL LOADS
    A. WIND SPEED (V-ULT): ..... 130 MPH
    WIND SPEED (V-ASD) ..... 101 MPH
    B. EXPOSURE CATEGORY: C
    C. BUILDING CATEGORY: II
    D. SEISMIC DESIGN CATEGORY: ..... A
    E. SITE CLASS: ..... D

5. GEOTECHNICAL ENGINEERING REPORT:
    PROVIDED BY: L & G CONSULTING ENGINEERS, INC.
    PROJECT NUMBER: G16011
    DATED: 06/30/16
    FOUNDATION DESIGN BASED ON THE FOLLOWING PARAMETERS
    A. EFFECTIVE PI: 23
    B. CLIMATIC RATING (Cw): 15
    C. BEAMS DEPTH: ..... 48 IN
    D. FOOTING DEPTH ..... 48 IN
    E. ALLOWABLE BEARING CAPACITY (BEAMS) ..... 1,500 PSF
    F. ALLOWABLE BEARING CAPACITY (FOOTING) ..... 1,850 PSF
    G. EXISTING PVR: ..... .5 -.7 IN
    H. PVR (SEE EXCAVATION PLAN) ..... <1.0 IN

CONTRACTOR NOTE

THE STRUCTURAL SYSTEM FOR THIS PROJECT SHALL NOT BE CONSTRUCTED BY USING THE STRUCTURAL DRAWINGS ALONE. THESE DRAWINGS WERE DEVELOPED FROM DATA DERIVED PRIMARILY FROM THE ARCHITECTURAL DRAWINGS AND SECONDARILY FROM MEP, CIVIL AND OTHER DISCIPLINES' DOCUMENTS. IT IS INTENDED THAT CONSTRUCTION PROCEED BY UTILIZING ALL OF THE INFORMATION CONTAINED IN THE ENTIRE SET OF CONSTRUCTION DOCUMENTS TAKEN AS A WHOLE; FAILURE TO DO SO WILL RESULT IN ERRORS WHICH SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

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CONCRETE

1. ALL CONCRETE WORK SHALL BE EXECUTED IN ACCORDANCE WITH ACI 318 AND ACI 301 LATEST EDITION.

2. CEMENT SHALL CONFORM TO ASTM CI50 TYPE I AGGREGATE SHALL CONFORM TO ASTM C33.

3. CONCRETE SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH AS FOLLOWS:

MEMBER TYPE	STRENGTH	SLUMP	MAX AGG.
FOUNDATION AND SLAB	3000 PSI	4"-6"	1.5 IN.
PIERS	4000 PSI	5"-9"	1 IN.
COLUMNS	4000 PSI	4"-6"	I.5 IN.
C.I.P. BEAMS AND LINTELS	4000 PSI	4"-6"	1.5 IN.

4. INSTALL 10 MIL VAPOR RETARDER UNDER SLABS ON GRADE AND ALONG SIDE OF TRENCHES IN ACCORDANCE WITH ASTM E1643. LAP JOINTS MINIMUM OF 12 INCHES.

5. PLACE CONCRETE CONTINUOUSLY BETWEEN PRE-DETERMINED EXPANSION AND CONSTRUCTION JOINTS.

6. ALL CONSTRUCTION JOINT LOCATIONS TO BE APPROVED BY ARCHITECT AND STRUCTURAL ENGINEER.

7. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED.

8. CURE CONCRETE IN ACCORDANCE WITH ACI 308.1

9. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR LOCATIONS OF ALL DEPRESSIONS, OPENINGS, ACCESSORIES, ETC.

10. CONDUIT AND PLUMBING LINES SHALL BE PLACED BELOW SLAB REINFORCING AND SHALL BE NO BIGGER THAN 1 INCH.

11. FLYASH MAY BE USED TO REPLACE A PORTION OF THE PORTLAND CEMENT. THE RATIO OF FLYASH TO THE TOTAL OF THE FLYASH AND CEMENT IN A MIX SHALL NOT EXCEED 20%. FLYASH SHALL CONFORM TO ASTM C618, TYPE C OR F.

12. ALL FLOORS SHALL BE CONSTRUCTED WITH A MINIMUM FLATNESS FF = 35 AND A MINIMUM LEVELNESS OF FL = 25

13. CONTRACTION JOINTS TO BE INSTALLED WITHIN 12 HOURS OF POURING FOUNDATION.

14. TESTING OF CONCRETE SHALL BE DONE AS FOLLOWS:
    1) SETS SHALL CONSIST OF 3 CYLINDERS
    ONE TESTED AT 7 DAYS
    TWO TESTED AT 28 DAYS
    2) ONE SET SHALL BE TAKEN FOR EACH 150 CY AND FOR EVERY 5000 SF OF SURFACE AREA AND AT LEAST ONCE PER DAY OF POURING
    3) A MINIMUM OF 3 SETS SHALL BE TAKEN FOR EACH CLASS OF CONCRETE

15. NO WATER SHALL BE ADDED TO THE CONCRETE AT THE JOBSITE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE CONCRETE SUPPLIER TO ENSURE A PUMPABLE AND WORKABLE MIX WITHOUT THE ADDITION OF WATER AT THE JOBSITE. THE USE OF PLASTICIZERS, RETARDANTS AND OTHER ADDITIVES SHALL BE AT THE OPTION OF THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER. FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER FOR THE PROPER USE OF ADDITIVES. THE USE OF CALCIUM CHLORIDE OR OTHER CHLORIDE BEARING SALTS SHALL NOT BE PERMITTED.

16. PLACE CONCRETE IN A MANNER SO AS TO PREVENT SEGREGATION OF THE MIX. DELAY FLOATING AND TROWELING OPERATIONS UNTIL CONCRETE HAS LOST SURFACE WATER SHEEN OR ALL FREE WATER. DO NOT SPRINKLE FREE CEMENT ON THE SLAB SURFACE. FINISHING OF SLAB SURFACES SHALL COMPLY WITH THE RECOMMENDATIONS OF AC1 302.1 AND 304.

17. UNLESS SPECIFIED, CONCRETE MUST REACH THE FOLLOWING PERCENTAGES OF ITS 28-DAY COMPRESSIVE STRENGTH (F'c), BEFORE FORMS MAY BE REMOVED.

    WALL, COLUMNS, & BEAM SIDES.....40%
    JOIST PANS & BEAM BOTTOMS (IF RESHORED).....70%
    SHORING FOR FLOOR SYSTEMS (IF NOT RESHORED).....85%

18. NO CONCRETE SHALL BE PLACED OUTSIDE OF THESE SPECIFICATIONS WITHOUT THE OWNER'S PRIOR APPROVAL. ANY ITEMS NOT IN COMPLIANCE WITH THE OUTLINED SPECIFICATION SHALL BE REPORTED TO THE OWNER AND STRUCTURAL ENGINEER WITHIN 24 HOURS.

19. CONSTRUCTION VEHICLE LOADS SHALL NOT BE PERMITTED ON ELEVATED SLABS AT ANY TIME.

20. ALL RETAINING WALLS TO BE SHORED UNTIL UPPER SLAB IS IN PLACE AND HAS REACHED 70% OF ITS DESIGN STRENGTH OR THE RETAINING WALL HAS REACHED 100% OF ITS DESIGN STRENGTH. PROVIDE GRANULAR BACKFILL AND PERFORATED DRAIN PIPE CONNECTED TO SITE DRAINAGE, RE: CIVIL PLAN.

STEEL REINFORCING

1. ALL REINFORCEMENT SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.

2. REINFORCING STEEL SHALL BE DESIGNED, DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL (SP-66) AND CSRI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE, (ACI #315) LATEST EDITIONS.

3. BARS SCHEDULED OR DETAILED "CONT" SHALL BE SPLICED ONLY WHEN UNAVOIDABLE AT POINTS OF MINIMUM STRESS AND WITH A MINIMUM LAP AS FOLLOWS:
    A. HORIZONTAL BARS w/ MORE THAN 12" OF FRESH CONCRETE CAST BELOW LAPS.
    #6 BARS AND SMALLER - 57 BAR DIAMETERS
    #7 BARS AND BIGGER - 72 BAR DIAMETERS
    B. OTHER BARS
    #6 BARS AND SMALLER - 44 BAR DIAMETERS
    #7 BARS AND BIGGER - 55 BAR DIAMETERS
    C. ALL SPLICES TO BE STAGGERED A MINIMUM OF 4'-0". TOP BAR AND BOTTOM BAR SPLICES TO BE LOCATED AT MID-SPAN AND WITHIN 1/3 SPAN RESPECTIVELY.

4. CORNER REINFORCING BARS SHALL BE USED AT ALL CORNERS AND INTERSECTIONS.

5. EXTEND THE SLAB REINFORCING STEEL PERPENDICULAR TO EXTERIOR GRADE BEAM TO THE TOP OUT SIDE REINFORCING BAR OF BEAM.

6. SPACE REINFORCING BARS WITH MINIMUM CLEAR SPACING IN ACCORDANCE WITH ACI 318 OF ONE BAR DIAMETER, BUT NOT LESS THAN 1 INCH. FOR COMPRESSION MEMBERS, SPACE AT A MINIMUM OF 1.5 INCHES OR 1.5 BAR DIAMETERS, WHICHEVER IS GREATER.

7. WHERE REINFORCING BARS ARE PLACED IN MULTIPLE LAYERS, PLACE UPPER BARS DIRECTLY ABOVE LOWER BARS.

8. MAINTAIN CONCRETE COVER AROUND REINFORCEMENT IN ACCORDANCE WITH ACI 318 AND AS FOLLOWS:
    A. FOOTING AND CONCRETE CAST AGAINST EARTH - 3 INCHES
    B. EXPOSED TO EARTH OR WEATHER
    #6 BARS AND BIGGER - 2 INCHES
    #5 BARS AND SMALLER - 1.5 INCHES
    C. BEAMS AND COLUMNS - 1.5 INCHES
    D. SLABS AND WALLS - 1 INCH

9. REPAIR ANY DAMAGE TO VAPOR RETARDER PER MANUFACTURER SPECIFICATIONS.

10. ADDITIONAL REINFORCING TO BE PROVIDED ON SITE FOR USE AS DIRECTED BY STRUCTURAL ENGINEER.
    #4 BARS - 100 FT.
    #5 BARS - 100 FT.
    #6 BARS - 100 FT.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE TO AISC SPECIFICATIONS.

2. MATERIALS USED SHALL BE AS FOLLOWS=
    A. STRUCTURAL W-SHAPES - ASTM A992 GRADE 50
    B. STRUCTURAL M-SHAPES AND S-SHAPES - ASTM A36
    C. STRUCTURAL T-SHAPES - CUT FROM W-SHAPES
    D. CHANNELS AND ANGLES - ASTM A36
    E. ROUND HOLLOW STRUCTURAL SECTIONS - ASTM A500 GRADE B
    F. SQUARE AND RECTANGULAR HOLLOW STRUCTURAL SECTIONS - ASTM A500 GRADE B
    G. STRUCTURAL PLATES - ASTM A36
    H. STRUCTURAL BARS - ASTM A36
    I. HIGH STRENGTH BOLTS - ASTM A325
    J. ELECTRODES - SERIES E70

3. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY SPECIFICATIONS.

4. CONNECTIONS NOT DETAILED AND/OR SCHEDULED ON STRUCTURAL DRAWINGS SHALL BE DETAILED BY FABRICATOR AND MARKED FOR ENGINEERS APPROVAL. CONNECTIONS TO BE DESIGNED TO AISC SPECIFICATIONS AND SHALL BE CAPABLE OF SUPPORTING 55% OF THE MAXIMUM UNIFORM LOAD CAPACITY FOR THE SPAN SPECIFIED, SHOWN IN THE TABLES OF UNIFORM CONSTANTS OF THE AISC MANUAL OF STEEL CONSTRUCTION.

5. REFER TO ARCHITECTURAL PLANS FOR ANY MISCELLANEOUS STEEL. MISCELLANEOUS STEEL AND CONNECTIONS SHALL BE DESIGNED BY STEEL FABRICATOR.

6. HOT DIP GALVANIZE, IN ACCORDANCE WITH ASTM A123 AND ASTM A153, STRUCTURAL STEEL AND FASTENERS PERMANENTLY EXPOSED TO THE WEATHER.

7. STEEL SUPPORTING OR CONNECTED TO HVAC AND OTHER EQUIPMENT AS SHOWN ON THE DRAWINGS IS SHOWN FOR BIDDING PURPOSES ONLY CONTRACTOR SHALL COORDINATE EXACT LOCATION AND SIZE BEFORE COMMENCING WORK.

8. STRUCTURAL STEEL SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PAINT.

9. STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED IN WHOLE OR IN PART FOR SHOP DRAWING SUBMITTALS.

10. PROVIDE 4 TONS OF RED IRON ALLOWANCE TO BE USED AS DIRECTED BY STRUCTURAL ENGINEER. INCLUDE LABOR COSTS IN THE ALLOWANCE. ANY UNUSED ALLOWANCE SHALL BE CREDITED BACK TO OWNER AT A COST OF $2500 PER TON.

11. ALL WELDED CONNECTION SHALL BE MADE WITH A 1/4" FILLET WELD U.N.O.

12. PROVIDE 1/2" GAP AT ALL PENETRATIONS THROUGH CMU WALL AND INFILL WITH ELASTOMERIC MATERIAL.

13. STEEL FABRICATOR SHALL BE CERTIFIED BY ONE OF THE FOLLOWING: AISC/ IBC/ IAS-ICC

COLD ROLLED STEEL SPECIFICATIONS (SSMA)

1. ALL STUDS AND/OR JOISTS AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, GAUGE AND SPACING SHOWN ON THE DRAWINGS.

2. ALL STRUCTURAL MEMBERS AND CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS". LATEST EDITION.

3. ALL STUDS, RUNNERS, JOIST AND TRUSSES SHALL BE FORMED FROM GALVANIZED STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, WITH A MINIMUM YIELD STRENGTH OF 50 KSI FOR .105, .097, .068, .054 THICK MEMBERS AND 33 KSI FOR .043 AND .033 THICK MEMBERS AND FLAT STRAP BRACING.

4. PRIOR TO FABRICATION THE CONTRACTOR SHALL SUBMIT ERECTION DRAWINGS TO THE STRUCTURAL ENGINEER FOR APPROVAL.

5. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR, AS REQUIRED, FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS.

6. AXIALLY LOADED STUDS SHALL BE INSTALLED IN A MANNER WHICH WILL ASSURE THAT THEIR ENDS ARE POSITIONED AGAINST THE INSIDE OF TRACK WEB PRIOR TO FASTENING.

7. FASTENING OF COMPONENTS SHALL BE WITH SELF-DRILLING SCREWS OR WELDS. SCREWS OR WELDS SHALL BE OF SUFFICIENT SIZE TO INSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS SHALL NOT BE PERMITTED. ALL WELDS SHALL BE TOUCHED-UP WITH A ZINC-RICH PAINT.

8. RUNNERS SHALL BE SECURELY ANCHORED TO THE SUPPORTING STRUCTURE. PROPOSED CONNECTION TO BE SUBMITTED FOR APPROVAL.

9. ABUTTING LENGTHS OF TRACK SHALL EACH BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, BUTT-WELDED, OR SPLICED.

10. STUDS SHALL BE PLUMB, ALIGNED AND SECURELY ATTACHED TO FLANGES OF BOTH UPPER AND LOWER TRACKS.

11. JACK STUDS OR CRIPPLES SHALL BE INSTALLED BELOW WINDOW SILLS, ABOVE WINDOW AND DOOR HEADERS, AND WHERE NEEDED TO FURNISH SUPPORT, AND SHALL BE SECURELY ATTACHED TO CONNECTING MEMBERS.

12. RESISTANCE TO MINOR AXIS BENDING AND ROTATION SHALL BE PROVIDED BY GYPSUM BOARD OR GYPSUM SHEATHING AND BY HORIZONTAL STRAP AND BLOCKING OR COLD-ROLLED CHANNEL BRACING AT THIRD POINTS.

13. SPLICES IN AXIALLY LOADED STUDS SHALL NOT BE PERMITTED.

14. PROVIDE A MINIMUM OF (3) #12 SCREWS FOR ALL STUD TO STUD CONNECTIONS.

15. BRIDGING SHALL BE INSTALLED IMMEDIATELY AFTER JOISTS ARE ERECTED AND BEFORE CONSTRUCTION LOADS ARE APPLIED TO PREVENT FLANGE ROTATION AND TO SUPPORT FLANGES IN COMPRESSION.

16 BRIDGING SHALL CONSIST OF SOLID BLOCKING PLUS STRAP BRACING OR 1 1/2" COLD-ROLLED CHANNELS SCREW-ATTACHED OR WELDED TO BOTTOM JOIST FLANGES. BRIDGING SHALL BE INSTALLED AT MID SPAN FOR SPANS 16'-0" OR LESS AND AT 8'-0" O.C. MAX. FOR SPANS GREATER THAN 16'-0" U.N.O.

17. SOLID BLOCKING, OF FIELD-CUT TRACK OR JOIST SECTION, SHALL BE PROVIDED, WELDED OR SCREW-ATTACHED BETWEEN OUTER JOIST, OVER ALL INTERIOR SUPPORTS AND ADJACENT TO OPENINGS AT 10'-0" O.C. MAX. COLD-ROLLED CHANNELS OR STRAP BRACING OF 1 1/2" x 33 MIL. (0.033") CORROSION-RESISTANT STEEL SHALL BE SCREW-ATTACHED TO BOTTOM JOIST FLANGE BETWEEN SOLID BLOCKING. REFERENCE MANUFACTURER INSTALLATION INSTRUCTIONS.

SHOP DRAWINGS & SUBMITTALS

1. SUBMITTAL THAT WILL BE REQUIRED FOR APPROVAL INCLUDE:
    A. CONCRETE MIX DESIGN
    B. CURING COMPOUND FOR CONCRETE
    C. REINFORCING STEEL
    D. STRUCTURAL STEEL
    E. STEEL JOIST
    F. METAL DECKING
    G. CMU WALL COMPONENTS
    H. PRE-ENG. BUILDING CALCS. (INCLUDING REACTIONS)

2. ALLOW (2) WEEKS MINIMUM FOR REVIEW OF SHOP DRAWINGS.

3. PRIOR TO ISSUING THE SUBMITTALS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSION WITH ARCHITECTURAL PLANS.

4. REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS FOR GENERAL CONFORMANCE TO THE STRUCTURAL DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR FOR ANY ERRORS IN DIMENSIONS OR MATERIAL INDICATED ON THE SHOP DRAWINGS.

METAL ROOF DECK

1. SHEET STEEL: ASTM A653 GRADE 33 STRUCTURAL QUALITY WITH G90 GALVANIZED COATING CONFORMING TO ASTM A525

2. DECK PROFILE - B
    PROFILE DEPTH - 1.5 IN.
    GAGE - 22

3. METAL DECK ATTACHMENT SHALL BE:
    AT SUPPORTS: #12 TEK SCREWS AT A 36/5 PATTERN
    AT SIDELAPS: #10 TEK SCREWS, 5 PER SPAN

4. WELDING OF METAL DECKING SHALL NOT BE ALLOWED

5. ALL METAL DECK PANELS SHALL SPAN ACROSS A MINIMUM OF FOUR JOISTS OR BEAMS

6. DECK ENDS SHALL BE LAPPED OVER SUPPORTS

MASONRY

1. MATERIALS:
    A. CONCRETE BLOCK: MEDIUM WEIGHT ASTM C90 (HOLLOW) ASTM C145 (SOLID) MINIMUM COMPRESSIVE STRENGTH: 1900 PSI
    B. MORTAR: ASTM C270 TYPE S.
    C. GROUT: MINIMUM COMPRESSIVE STRENGTH: 2000 PSI
    D. NET AREA COMPRESSIVE STRENGTH: 1500 PSI TO BE TESTED IN ACCORDANCE TO ATSM C1314 STANDARDS.
    E. JOINT REINFORCING: MILL GALVANIZED FINISH, 9 GAGE MINIMUM SIDE WIRES AND CROSS WIRES (DUR-O-WALL). A HOHMANN + BARNARD COMPANY.
    F. BAR REINFORCING: ASTM A615, GRADE 60 (UNLESS NOTED OTHERWISE).
    G. TYPICAL CMU WALL REINFORCING SHALL BE #5 (V) AT 48" O.C. AND #5 (H) AT 8'-0" O.C. U.N.O. ON DRAWINGS.

2. REINFORCED MASONRY, WHERE VERTICAL BARS ARE TO BE GROUTED INTO CORES, THE FOLLOWING REQUIREMENTS APPLY:
    A. PROVIDE DOWELS FROM WALL, SAME SIZE AND SPACING AS WALL BARS. LAP 48 BAR DIAMETERS MINIMUM WITH WALL BAR.
    B. PROVIDE A CONTINUOUS VERTICAL CAVITY, AT LEAST 2" x 3" IN SIZE, FREE OF MORTAR DROPPINGS.
    C. PROVIDE REBAR ALIGNMENT DEVICES AT A MAXIMUM SPACING OF 96 BAR DIAMETERS (MINIMUM OF 2 PER BAR).
    D. AT SPLICES IN VERTICAL BARS, PROVIDE MECHANICAL COUPLERS OR 48 BAR DIAMETER LAP.
    E. ALL REINFORCEMENT MUST BE INSTALLED AND SECURELY ANCHORED IN PLACE PRIOR TO PLACEMENT OF GROUT.
    F. MAXIMUM HEIGHT OF GROUT LIFT = 4'-0'. UNLESS HIGH LIFT GROUTING PROCEDURES ARE EMPLOYED IN ACCORDANCE WITH ASI 530-99

3. MISCELLANEOUS:
    A. FILL CORE SOLID AROUND ANCHOR BOLTS.
    B. PROVIDE SOLIDLY FILLED HOLLOW BLOCKS AT ALL EMBED ANCHOR LOCATIONS.
    C. SET WELD PLATES IN BOND BEAMS AFTER THE GROUT IS PLACED, BUT WHILE IT IS STILL PLASTIC.
    D. HOLLOW MASONRY UNITS TO BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS SHALL ALSO BE BEDDED IN ALL COURSES OF PIERS, COLUMNS, AND PILASTERS, AND IN THE STARTING COURSE ON FOOTING, AND WHEN ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT, SOLID UNITS TO BE LAID WITH WITH FULL HEAD AND BED JOINTS.
    E. PROVIDE JOINT REINFORCING AT 16 INCHES, EXCEPT AS NOTED.
    F. LAP JOINT REINFORCING 6 INCHES FOR STANDARD, 15 INCHES FOR HEAVY WEIGHT.
    G. VERTICAL CONTROL JOINTS SHALL BE PROVIDED FULL HEIGHT OF MASONRY WALLS AS LOCATED ON THE DRAWINGS. THE JOINT SHALL BE PROVIDED AS A CONTINUOUS HEAD JOINT WITH MORTAR RAKED BACK 3/4" AT BOTH FACES AND 50% OF THE HORIZONTAL JOINT REINFORCING CUT AT THE JOINT. AFTER THE MORTAR IS SET, THE JOINT SHALL BE CAULKED.
    H. FILL ALL VOIDS AND CELLS WITHIN 12" EITHER SIDE OF CENTERLINE OF BEAM AND/OR COLUMN BEARING LOCATIONS WITH A #4 REINFORCING BAR AND GROUT U.N.O.
    I. ALL CMU WALLS MUST HAVE SPECIAL INSPECTION PER IBC CODE 2012 SECTION 1705.4 "MASONRY CONSTRUCTION" ON CHAPTER 17-"STRUCTURAL TEST & SPECIAL INSPECTION". THE CONTRACTOR MUST PROVIDE REPORTS OF THESE "SPECIAL INSPECTIONS".
    J. BARS SCHEDULED "CONTINUOUS" SHALL BE SPLICED AS FOLLOWS:

REINFORCING BAR SIZE	MIN. LAP SPLICE LENGTH
#5	30"
#6	36"
#7	42"
#8	48"
#9	54"
#10	MECHANICAL CONNECTOR
#11	

4. STABILITY AND BRACING:
    ALL MASONRY WALLS SHOWN ON THE CONTRACT DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES APPLIED TO THEM IN THEIR FINAL CONSTRUCTED POSITION ONLY ASSUMING FULL BRACING AT TOP, BOTTOM, AND/ OR SIDES AS INDICATED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT CONSTRUCTION RESIST ANY ERECTION VERTICAL OR LATERAL LOADS THAT COULD BE IMPOSED ON THE WALLS PRIOR TO CONSTRUCTION COMPLETION.

5. GENERAL CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING WITH STRUCTURAL ENGINEER AND MASONRY CONTRACTOR BEFORE MASONRY WORK COMMENCES.

STEEL JOISTS

1. ALL STEEL JOISTS AND JOIST GIRDERS SHALL BE DETAILED, FABRICATED AND ERECTED PER AISC AND SJI SPECIFICATIONS FOR OPEN-WEB STEEL JOISTS.

2. STEEL JOISTS SHALL BE WELDED TO SUPPORTING MEMBERS UNLESS NOTED OTHERWISE.

3. JOIST BEARING SHALL BE A MINIMUM OF 2 1/2 INCHES WITH A MINIMUM 2 INCH LONG FILLET WELD EACH SIDE OF BEARING.

4. JOISTS AT COLUMN LOCATIONS OR CLOSEST JOIST TO COLUMN SHALL BE BOLTED.

5. PROVIDE BRIDGING IN ACCORDANCE WITH SJI SPECIFICATIONS. BRIDGING SHALL BE CONTINUOUS THROUGH STRUCTURAL STEEL MEMBERS, AND SHALL BE ANCHORED TO SPANDREL MEMBERS OR WALLS. PROVIDE ADDITIONAL BRIDGING WHERE REQUIRED FOR UPLIFT.

6. BOTTOM CHORD EXTENSIONS TO BE PROVIDED AS REQUIRED BY ARCHITECTURAL PLANS.

7. JOISTS SUPPORTING MECHANICAL UNITS TO BE DESIGNED FOR UNIT WEIGHT IN ADDITION TO GRAVITY LOADS SHOWN IN DESIGN CRITERIA.

8. REFER TO MECHANICAL ENGINEERING PLANS FOR EXACT UNIT WEIGHT AND LOCATIONS.

9. MECHANICAL EQUIPMENT SHALL BE SUPPORTED BY TOP CHORD OF JOIST ONLY.

10. PROVIDE SUPPORT ANGLES AROUND ANY OPENINGS IN ROOF DECK.

11. JOISTS AND ACCESSORIES SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PAINT.

12. JOISTS TO BE DESIGNED PER LOADS SHOWN IN DESIGN CRITERIA.

13. DESIGN JOISTS FOR A 500 LB CONCENTRATED LOAD AT MIDSPAN TO ACT CONCURRENTLY WITH OTHER LOADS IN DESIGN CRITERIA.

14. JOIST MANUFACTURER SHALL DESIGN BOTTOM CHORDS OF ALL OPEN WEB JOISTS AND JOIST GIRDERS TO SUPPORT A 50 lb LOAD LOCATED ANYWHERE ALONG THE LENGTH OF THE CHORD.

15. HANGERS FOR MECHANICAL EQUIPMENT WITH REACTIONS IN EXCESS OF 50 lbs MUST BE LOCATED AT THE PANEL POINTS OF THE JOISTS. PROVIDE JOIST REINFORCING IN ACCORDANCE WITH THE TYPICAL DETAILS WHERE HANGERS ARE REQUIRED TO BE LOCATED MORE THAN 4 INCHES FROM THE JOIST PANEL POINTS.

16. P

GENERAL NOTES

PRE-ENGINEERED METAL BUILDING AND COMPONENTS

1. REFER TO SCHEMATIC ROOF FRAMING PLAN AND DESIGN CRITERIA FOR DESIGN LOAD REQUIREMENTS AND SPECIFICATIONS FOR THE PRE-ENGINEERED METAL BUILDING.
2. PRE-ENGINEERED METAL BUILDING MANUFACTURER SHALL SUBMIT DESIGN CERTIFICATION SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS FOR THE STRUCTURAL FRAMING AND COVERING PANELS OF THE BUILDING SYSTEM. CERTIFICATION AND DESIGN SHALL MEET REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC) AND ASCE 7.
3. PRE-ENGINEERED METAL BUILDING MANUFACTURER CERTIFICATION SHALL BE SUBMITTED WITH SEALED SHOP DRAWINGS WHEN SUBMITTED FOR REVIEW.
4. SHOP DRAWINGS AND CALCULATIONS INCLUDING BUILDING REACTIONS, SHALL BE PREPARED AND REVIEWED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS. SEALED SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW BY THE DESIGN TEAM.
5. ALL COMPONENTS SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS AND STANDARDS OF THE AISC. THIS WORK SHALL INCLUDE ALL MEMBERS AND BRACES NECESSARY TO BRACE MASONRY WALLS. LIGHT GAGE STEEL MEMBERS SHALL COMPLY WITH THE LATEST ADDITION OF THE AISI.
6. PURLINS AND EAVE STRUTS SHALL HAVE A MINIMUM YIELD STRESS OF 55 KSI AND SHALL BE PAINTED WITH ONE COAT OF RED OXIDE OR APPROVED SHOP COAT.
7. PURLIN SPACING SHOWN IN STRUCTURAL DRAWINGS ARE FOR SCHEMATIC PURPOSES ONLY. PURLIN SPACING TO BE DETERMINED BY METAL BUILDING MANUFACTURER. PURLINS SHALL HAVE A MAXIMUM TOTAL LOAD DEFLECTION OF L/180.
8. SAG STRAPS SHALL BE LOCATED AS SHOWN ON PLANS AND SHALL BE FABRICATED WITH A MINIMUM YIELD STRENGTH OF 50 KSI.
9. STANDING SEAM METAL ROOF SHALL NOT BE CONSIDERED TO PROVIDE LATERAL BRACING FOR PURLINS. BRIDGING SHALL BE DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER TO RESIST BOTH GRAVITY AND UPLIFT LOADS.
10. CROSS BRACING SHALL BE DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER TO PROVIDE AN ADEQUATE HORIZONTAL ROOF DIAPHRAGM FOR THE STRUCTURE.
11. PROVIDE PINNED BASE CONNECTION FROM COLUMN TO FOUNDATION.
12. ALL ANCHOR BOLTS SIZES, LENGTH, AND EMBEDMENT SHALL BE DESIGNED BY THE METAL BUILDING MANUFACTURER AND SUPPLIED BY THE CONTRACTOR. ANCHOR BOLT EMBEDMENT DEPTHS SHALL BE DESIGNED TO RESIST CONCRETE CONICAL SHEAR FAILURE.
13. THIS FOUNDATION HAS BEEN DESIGNED USING ASSUMED REACTIONS FROM THE PRE-ENGINEERED METAL BUILDING COMPONENTS AND IS FOR BID PURPOSES ONLY. THE CONTRACTOR SHALL SUBMIT BASE CONNECTION DETAILS (SIZE AND THICKNESS OF BASE PLATE AND DIAMETER AND LENGTH OF ANCHOR BOLTS) AND REACTIONS SO THE DESIGN ASSUMPTIONS CAN BE VERIFIED.
14. ANY ADDITIONAL COST OF FOUNDATION WORK REQUIRED BY REVISIONS OF THE FOUNDATION DESIGN AFTER PRE-ENGINEERED METAL BUILDING REACTIONS ARE SUBMITTED SHALL NOT BE INCURRED BY STRUCTURAL ENGINEER.
15. DRIFT CRITERIA FOR RIGID FRAMES AND METAL GIRTS SHALL HAVE A MAXIMUM DEFLECTION OF H/240 FOR MASONRY FINISHES AND A H/120 FOR METAL SIDING.

DRILLED CONCRETE PIERS

1. CONSTRUCTION PROCEDURES TO FOLLOW ACI 336.1 AND ACI 336.3R
2. PIERS NOT SPECIFICALLY DIMENSIONED ON THE PLAN SHALL BE CENTERED UNDERNEATH COLUMN OR GRADE BEAM, AS OCCURS.
3. PIERS SHALL BE DRILLED PLUMB ALONG ENTIRE LENGTH. MAXIMUM ALLOWED DEVIATION FROM POSITION AT TOP OF SHAFT IS 1" PER 10' OF DEPTH.
4. CLEAN SHAFT AND BOTTOM OF LOOSE MATERIAL. MAINTAIN SHAFTS FREE OF WATER PRIOR TO PLACING CONCRETE.
5. ELEVATION OF TOP OF PIERS IS A THE BOTTOM OF THE DEEPEST INTERSECTING BEAM, COLUMN, OR WALL SUPPORTED AT THE PIER, UNLESS NOTED OTHERWISE.
6. REINFORCING STEEL CAGE SHALL BE HELD IN PLACE BY A MINIMUM OF 3 SETS OF SPACERS AT A MAXIMUM SPACING OF 8 FT. ALONG THE ENTIRE DEPTH OF THE PIER AND AT 3" FROM THE BOTTOM.
7. CONTRACTOR TO VERIFY DEPTH OF PIER BEFORE REINFORCING STEEL IS CUT. PIER STEEL SHALL BE DELIVERED TO SITE IN STANDARD LENGTHS AND CUT AS REQUIRED. PROVIDE 75 BAR DIAMETER LAPS WHEN NEEDED.
8. PIER REINFORCING AND CONCRETE SHALL BE PLACED IMMEDIATELY AFTER DRILLING OPERATIONS ARE COMPLETE.
9. UNDER NO CONDITIONS SHALL A PIER BE DRILLED THAT CANNOT BE POURED THE SAME DAY.
10. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER FOR INSPECTION AND VERIFICATION OF PIERS IN ORDER TO ENSURE BEARING IN CORRECT SOIL STRATUM AS RECOMMENDED IN PROJECT GEOTECHNICAL REPORT.
11. TEMPORARY STEEL CASING MAY BE REQUIRED DURING DRILLING OPERATIONS. ANY SEEPAGE WATER SHALL BE REMOVED FROM PIER HOLES PRIOR TO POURING CONCRETE.
12. STEEL CASING SHALL BE CONTINUOUSLY JOINED AND SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND HANDLING STRESS, DRILLING STRESSES, CONCRETE PRESSURES, AND SURROUNDING EARTH AND WATER PRESSURES AND TO PERMIT ADVANCEMENT OF THE PIER THROUGH CAVING GROUND.
13. SIZE AND LENGTH OF CASING SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR ACCEPTANCE.
14. PLACE CONCRETE IN PIER IN ONE CONTINUOUS OPERATION WITHOUT CESSATION FROM BOTTOM OF PIER TO TOP.
15. TESTING OF CONCRETE SHALL BE AT THE RATE OF ONE SET OF FOUR (4) CYLINDERS PER PIER BUT NOT MORE THAN ONE SET PER TRUCKLOAD.
16. CONTRACTOR SHALL MAKE ACCURATE RECORDS OF THE DRILLED PIER LOCATIONS, DEPTHS, BEARING STRATUM, DEPTH OF PENETRATION INTO BEARING STRATUM AND DIAMETER AND SHALL SUBMIT THIS INFORMATION TO ENGINEER.
17. MINIMUM VERTICAL REINFORCING TO BE 1% OF CROSS-SECTIONAL AREA OF PIER, WITH MINIMUM OF SIX (6) BARS, AND #3 SPIRAL, UNLESS NOTED OTHERWISE.

STRUCTURAL TESTS AND SPECIAL INSPECTION

1. THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THIS SECTION.
2. THE FOLLOWING TERMS AND PHRASES SHALL HAVE THE MEANINGS SHOWN BELOW AS IT PERTAINS TO THIS SECTION,
   A. APPROVED AGENCY - AN ESTABLISHED AND RECOGNIZED AGENCY REGULARLY ENGAGED IN CONDUCTING AND FURNISHING SPECIAL INSPECTION SERVICES.
   B. APPROVED FABRICATOR - AN ESTABLISHED AND QUALIFIED FIRM APPROVED BY BUILDING OFFICIAL. SPECIAL INSPECTIONS ARE NOT REQUIRED WHEN WORK IS PERFORMED ON THE PREMISES OF AN APPROVED FABRICATOR.
   C. SPECIAL INSPECTION, CONTINUOUS - THE FULL TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION.
   D. SPECIAL INSPECTION, PERIODIC - THE PART TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION.
3. SPECIAL INSPECTORS SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED THEY SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.
4. MASONRY CONSTRUCTION SHALL BE INSPECTED ADN VERIFIED IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 QUALITY ASSURANCE PROGRAM REQUIRMENTS.
5. SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.
6. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION.

TABLE 1705.2.2
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[a]
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK.			
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	——	X	APPLICABLE ASTM MATERIAL STANDARDS
b. MANUFACTURER'S CERTIFICATE TEST REPORTS.	——	X	——
2. INSPECTION OF WELDING:			
a. COLD-FORMED STEEL DECK:			
1) FLOOR AND ROOF DECK WELDS	——	X	AWS D1.3
b. REINFORCING STEEL:			
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	——	X	
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	——	AWS D1.4 ACI 318: SECTION 3.5.2
3) SHEAR REINFORCEMENT.	X	——	
4) OTHER REINFORCING STEEL.	——	X	

TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[b]	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	——	X	ACI 318: 3.5, 7.1-7.7	1910.4
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.	——	——	AWS D1.4 ACI 318: 3.5.2	——
3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	——	X	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	——	X	ACI 318. 3.86, 8.1.3, 21.2.8	1909.1
5. VERIFYING USE OF REQUIRED DESIGN MIX.	——	X	ACI 318: Ch. 4, 5.2-5.4	1904.2, 1910.2, 1910.3
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	——	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	——	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	——	X	ACI 318: 5.11-5.13	1910.9
9. INSPECTION OF PRESTRESSED CONCRETE: a. APPLICATION OF PRESTRESSING FORCES. b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X X	——	ACI 318: 18.20 ACI 318: 18.18.4	——
10. ERECTION OF PRECAST CONCRETE MEMBERS.	——	X	ACI 318: Ch.16	——
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	——	X	ACI 318: 6.2	——
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	——	X	ACI 318: 6.1.1	——

TABLE 1705.6
REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	——	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	——	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	——	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	——
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	——	X

TABLE 1705.8
REQUIRED VERIFICATION AND OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	X	——
2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	X	——
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	——	——

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[b]	IBC REFERENCE
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:				
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	——	X	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360, SECTION A3.3	——
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	——	X	——	——
2. INSPECTION OF HIGH-STRENGTH BOLTING:				
a. BEARING-TYPE CONNECTIONS.	——	X	AISC 360, SECTION M2.5	1704.3.3
b. SLIP-CRITICAL CONNECTIONS.	X	X		
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL:				
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	——	——	ASTM A 6 OR ASTM A 568	1708.4
b. MANUFACTURERS' CERTIFIED MILL TEST REPORTS.	——	——	ASTM A 6 OR ASTM A568	
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				
a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	——	——	AISC 360, SECTION A3.5	——
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	——	——	——	——
5. INSPECTION OF WELDING:	——	——		
a. STRUCTURAL STEEL:				
1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	X	——	AWS D1.1	1704.3.1
2) MULTIPASS FILLET WELDS.	X	——		
3) SINGLE-PASS FILLET WELDS > 5/16"	X	——		
4) SINGLE-PASS FILLET WELDS ≤ 5/16"	——	X		
5) FLOOR AND ROOF DECK WELDS.	——	X	AWS D1.3	——
b. REINFORCING STEEL:	——	——	AWS D1.4 ACI 318: 3.5.2	——
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	——	X		
2) REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.	X	——		
3) SHEAR REINFORCEMENT.	X	——		
4) OTHER REINFORCING STEEL.	——	X		
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS: a. DETAILS SUCH AS BRACING AND STIFFENING. b. MEMBER LOCATIONS. c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	—— —— ——	X —— ——	——	1704.3.2

LEVEL 1 SPECIAL INSPECTION

INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: IBC SECTION	REFERENCE FOR CRITERIA: ACI 530/ ASCE 5/ TMS 402[A]	REFERENCE FOR CRITERIA: ACI 530.1/ ASCE 6/ TMS 602[a]
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. PROPORTIONS OF SITE-PREPARED MORTAR.	——	X	——	——	Art. 2.6A
b. CONSTRUCTION OF MORTAR JOINTS.	——	X	——	——	Art. 3.3B
c. LOCATION OF REINFORCEMENT , CONNECTORS, PRESTRESSING TENDONS AND ANCHORAGES.	——	X	——	——	Art. 3.4, 3.6A
d. PRESTRESSING TECHNIQUE.	——	X	——	——	Art. 3.6B
e. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	——	X	——	——	Art. 2.4B, 2.4H
2. THE INSPECTION PROGRAM SHALL VERIFY:					
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	——	X	——	——	Art. 3.3G
b. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.	——	X	——	Sec. 1.2.2(e), 2.1.4, 3.1.6	——
c. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT	——	X	——	Sec. 1.13	Art. 2.4, 3.4
d. WELDING OF REINFORCING BARS.	X	——	——	Sec. 2.1.10.7.2, 3.3.3.4(b)	——
e. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).	——	X	Sec. 2104.3, 2104.4	——	Art. 1.8C, 1.8D
f. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	——	X	——	——	Art. 3.6B
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. GROUT SPACE IS CLEAN.	——	X	——	——	Art. 3.2D
b. PLACEMENT OF REINFORCEMENT AND CONNECTORS AND PRESTRESSING TENDONS AND ANCHORAGES.	——	X	——	Sec. 1.13	Art. 3.4
c. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.	——	X	——	——	Art. 2.6B
d. CONSTRUCTION OF MORTAR JOINTS.	——	X	——	——	Art. 3.3B
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	X	——	——	——	Art. 3.5
a. GROUTING OF PRESTRESSING BONDED TENDONS.	X	——	——	——	Art. 3.6C
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	X	——	Sec. 2105.2.2, 2105.3	——	Art. 1.4
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	——	X	——	——	Art. 1.5

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PALMER PAVILION RENOVATION
Mc ALLEN, TEXAS USA

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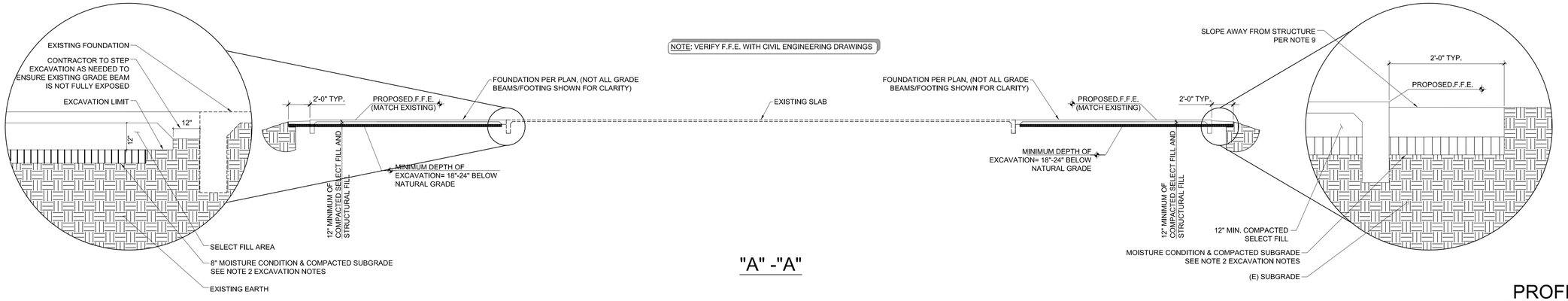
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

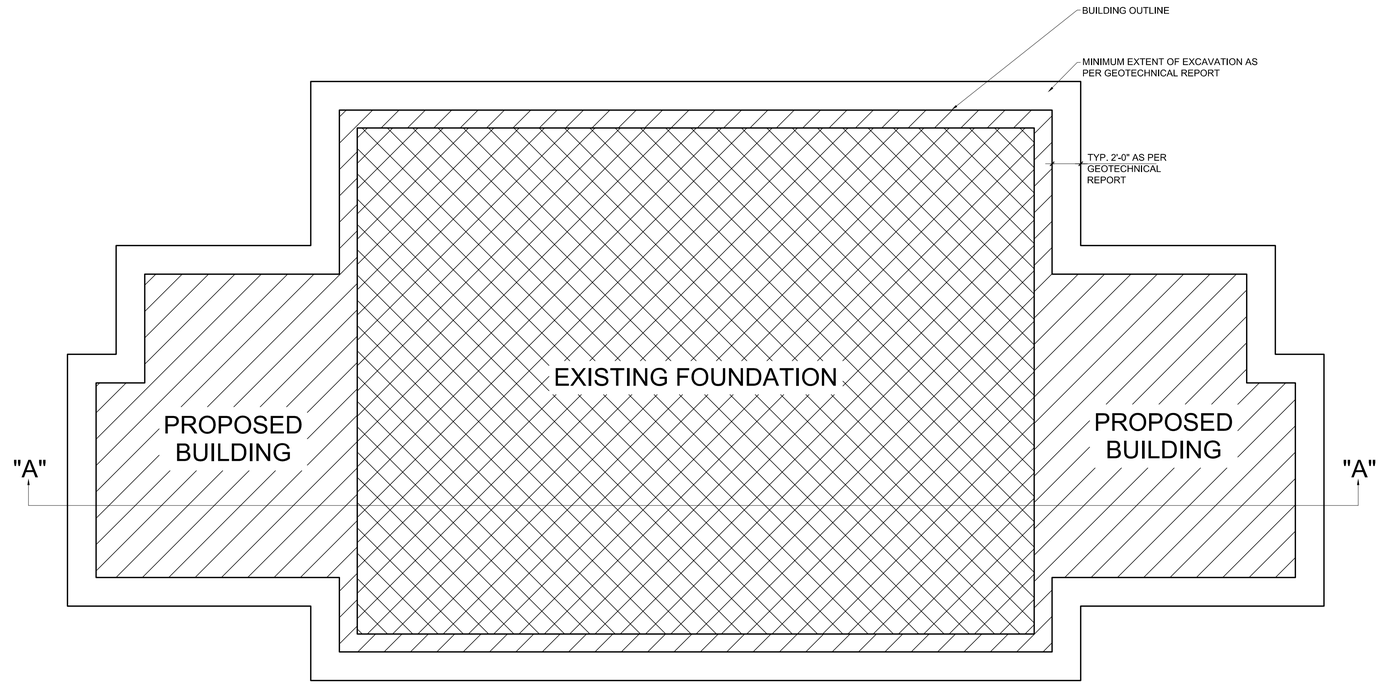
GENERAL NOTES

S1.02



"A" -"A"

PROFILE
N.T.S. 2



EXCAVATION NOTES

1. CONSTRUCTION AREAS REMOVE AT LEAST 6-12 INCHES OF TOP SOIL, VEGETATION, DEBRIS, ETC., FROM THE PROPOSED BUILDING AREA TO A DISTANCE OF 2'-0" OUTSIDE THE PROPOSED BUILDING LINE. FURTHER EXCAVATE SOILS FROM THE PROPOSED BUILDING TO A DEPTH OF 12" BELOW PROPOSED FINISH GRADE.
2. EXPOSED SUBGRADE SHOULD BE MOISTURE CONDITIONED, COMPACTED, AND TESTED (MINIMUM DEPTH OF 12") TO A RANGE OF OPTIMUM MOISTURE CONTENT TO +3%. ABOVE OPTIMUM AND A MINIMUM 95% OF THE MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM D-698. ANY SOFT AND/OR COMPRESSIBLE SOFT SPOTS NOTED DURING COMPACTION ACTIVITIES SHALL BE OVER-EXCAVATED AND REPLACED WITH SELECTED FILL.
3. FILL BACK TO REQUIRED GRADE (A MINIMUM OF 12" OF STRUCTURAL FILL IS REQUIRED. REFER TO CIVIL PLANS FOR FINISHED FLOOR ELEVATION TO DETERMINE ADDITIONAL AMOUNT OF SELECT FILL NEEDED) WITH MATERIAL SELECTED AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW.
4. MATERIALS USED FOR STRUCTURAL FILL SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS OF TX DOT 2014 SPECIFICATION:

A. ITEM 247 TYPE E, GRADE 4 - CALICHE

RETAINED ON SQUARE SIEVE	PERCENT RETAINED
2"	0
1/2"	20-60
NO. 4	40-75
NO. 40	70-90
PLASTICITY INDEX, MAX	15
WET BALL PI, MAX	15
WET BALL MILL, % MAX	50

B. ITEM 247 TYPE A, GRADE 1- LIMESTONE

RETAINED ON SQUARE SIEVE	PERCENT RETAINED
2-1/2"	0
1-3/4"	0-10
7/8"	10-35
3/8"	30-65
NO. 4	45-75
NO. 40	65-90
PLASTIC LIMIT,% MAX	40
PLASTICITY INDEX, % MAX	10
WET BALL MILL, % MAX	40

5. STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM 98 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D698 AT MOISTURE CONTENTS RANGING BETWEEN -2% AND + 2% OF THE OPTIMUM MOISTURE CONTENT. FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8 INCHES. THE FILL SHOULD BE PROPERLY COMPACTED IN ACCORDANCE WITH THESE RECOMMENDATION AND TESTED FOR COMPACTION AS SPECIFIED.
6. SAMPLES OF PROPOSED STRUCTURAL FILL SHALL BE FURNISHED TO THE TESTING LABORATORY 7 DAYS PRIOR TO INSTALLATION TO PERMIT TIME FOR SPECIFICATION COMPLIANCE INSPECTION AND APPROVAL.
7. SITE PREPARATION TESTING SHALL BE AS FOLLOWS:
   A. ATTERBERG LIMITS OF SELECT FILL MATERIAL:
      (1) ONE TEST PER 5,000 CY
   B. COMPACTION TEST:
      TO BE PERFORMED PER LIFT ON TEST PER 3,000 SF MINIMUM
      OF (4) FOUR TEST PER LIFT
8. GEOTECHNICAL REPORT SHALL BE CONSIDERED A PART OF THE CONSTRUCTION DOCUMENTS. CONTRACTOR TO REVIEW AND COMPLY WITH ALL EARTHWORK AND GRADING REQUIREMENT IN GEOTECHNICAL REPORT.
9. FINAL SITE GRADING TO SLOPE AWAY FROM THE STRUCTURE AND SHALL PREVENT WATER FROM PONDING IN THE AREAS ADJACENT TO THE STRUCTURE FOR A MINIMUM DISTANCE OF 10'-0". ANY PONDING CLOSE TO THE STRUCTURE MAY CREATE VOLUMETRIC CHANGES IN THE SOIL AND MAY LEAD TO LESS THAN OPTIMUM PERFORMANCE OF THE BUILDING FOUNDATION.
10. IT IS ALSO IMPORTANT TO MINIMIZE CHANGES IN MOISTURE CONTENT CREATED BY ROOF DRAINAGE, PLUMBING LEAKS, LANDSCAPING / IRRIGATION, AND DOWNSPOUT OUTFALLS. ANY PLUMBING LEAKS SHALL BE REPAIRED AS SOON AS POSSIBLE AND PROPER DRAINAGE PROVIDED AWAY FROM THE BUILDING. LARGE BUSHES AND TREES SHALL NOT BE PLACED IN AREAS DIRECTLY ADJACENT TO THE FOUNDATION AS THEIR ROOT SYSTEM MAY CREATE SUBSTANTIAL MOISTURE DIFFERENTIALS THAT MAY LEAD TO VOLUME CHANGES IN THE SOIL. LARGE BUSHES AND TREES SHOULD BE LOCATED AT A REASONABLE DISTANCE FROM THE FOUNDATION.

N

EXCAVATION PLAN
N.T.S. 1

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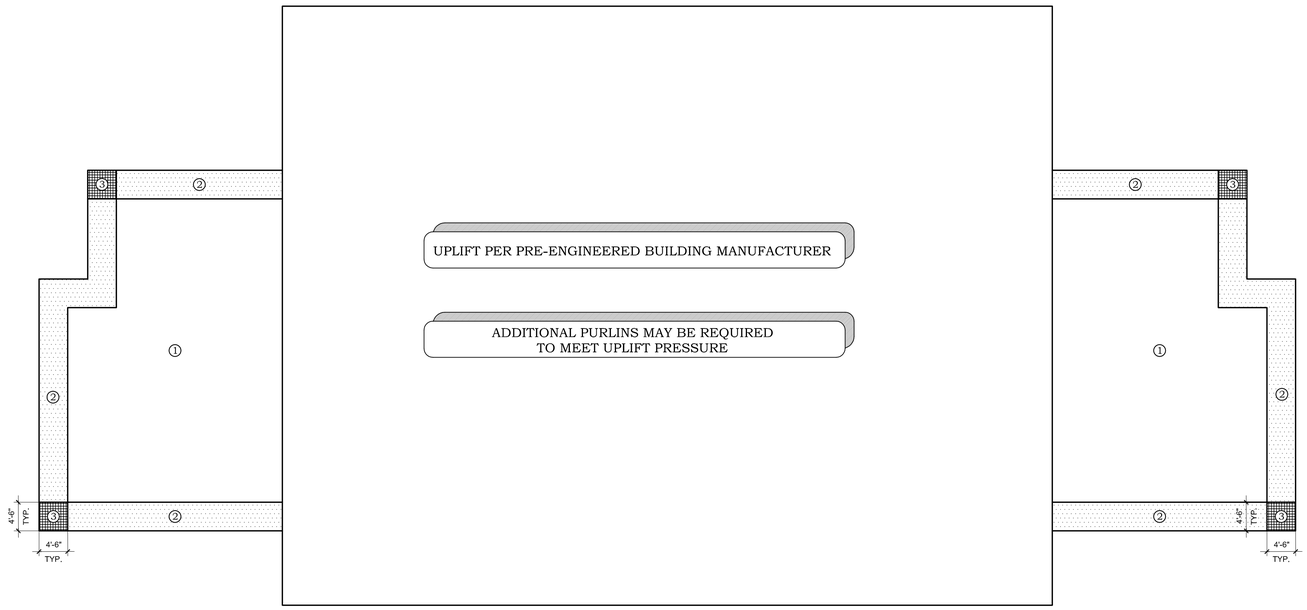
CHECKED BY:	MC

GENERAL NOTES

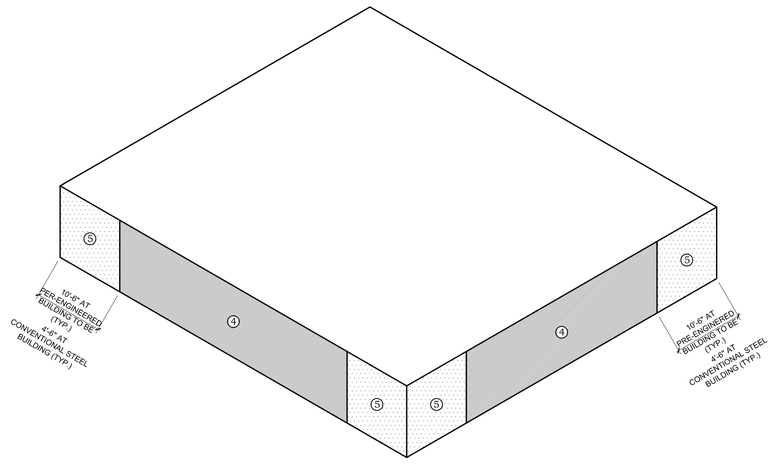
S1.03



ROOF UPLIFT PLAN
N.T.S. 2

ALLOWABLE STRESS DESIGN

EFFECTIVE WIND AREA	ZONE	GROSS	NET
10	①	22.1 psf	16.1 psf
20	①	21.5 psf	15.5 psf
50	①	20.8 psf	14.8 psf
10	②	37.0 psf	31.0 psf
20	②	33.1 psf	27.1 psf
50	②	27.9 psf	21.9 psf
10	③	55.8 psf	49.8 psf
20	③	46.2 psf	40.2 psf
50	③	33.5 psf	27.5 psf



COMPONENTS AND CLADDING
N.T.S. 1

ALLOWABLE STRESS DESIGN

EFFECTIVE WIND AREA	ZONE	MAX PRESSURE
10	④	24.0 psf
20	④	22.9 psf
50	④	21.6 psf
10	⑤	29.5 psf
20	⑤	27.6 psf
50	⑤	24.9 psf

ALLOWABLE STRESS DESIGN (PRE ENGINEERED BUILDING)

EFFECTIVE WIND AREA	ZONE	MAX PRESSURE
10	④	28.7 psf
20	④	27.5 psf
50	④	25.9 psf
10	⑤	35.4 psf
20	⑤	33.1 psf
50	⑤	29.8 psf

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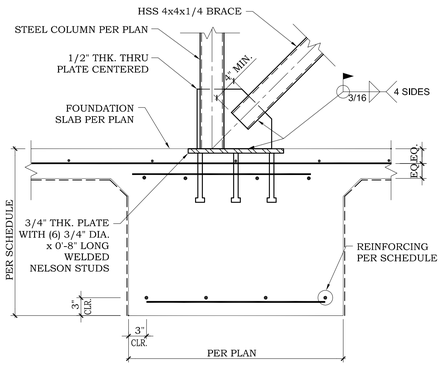
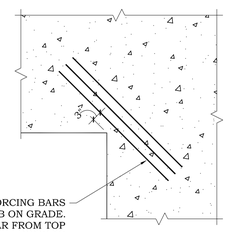
ROOF UPLIFT PLAN

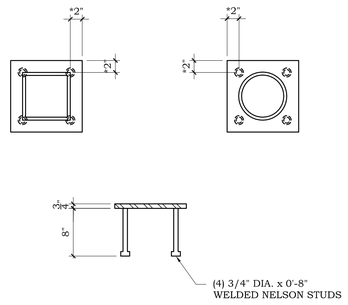
S1.04



K-FRAME DETAIL | 17

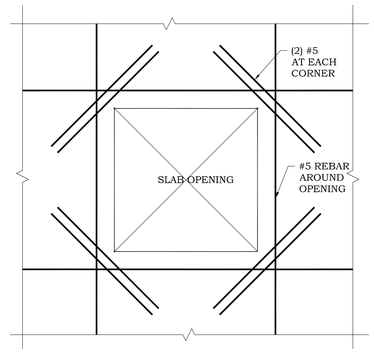


TYPICAL SLAB REINFORCING | 13

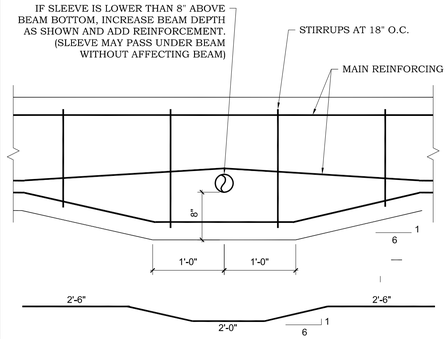


NOTE: * DIMENSION FROM EDGE OF PLATE TO FACE OF COLUMN

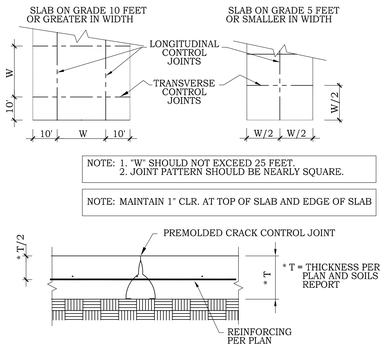
BASE PLATE DETAIL | 9



OPENINGS IN SLAB | 5

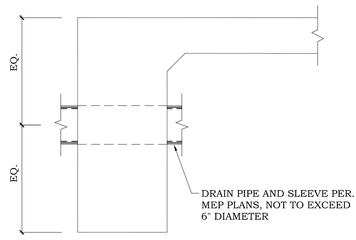


TYPICAL SLEEVE IN GRADE BEAM | 1

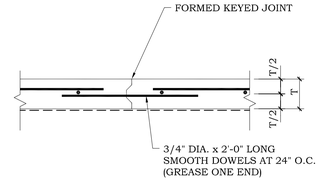


(THIS DETAIL TO BE USED ONLY IN THE ABSENCE OF ARCH'L INFO. FOR CONTROL JOINTS)

SLAB CONTROL JOINT DETAIL AT GYM SLAB | 18



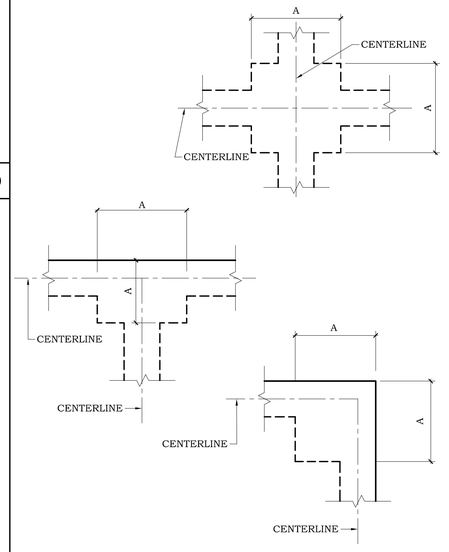
PIPE EXTERIOR FOOTING | 14



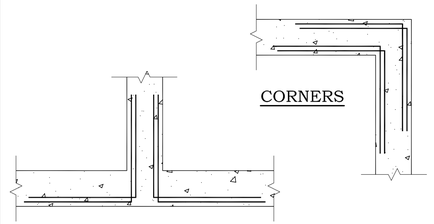
1. CONTRACTOR TO SUBMIT ANY PROPOSED LOCATIONS OF CONSTRUCTION JOINTS TO STRUCTURAL ENGINEER BEFORE COMMENCING WORK.
2. GRADE BEAM REINFORCING SHALL BE CONTINUOUS THRU JOINT

CONSTRUCTION JOINT DETAIL | 10

FOOTING SCHEDULE AT STEEL COLUMNS			
TYPE	A	DEPTH	REBAR REINFORCEMENT
S2	2'-6"	3'-0"	#5'S @ 12" O.C. E.W. TOP & BOTTOM
S3	3'-6"	3'-0"	#5'S @ 12" O.C. E.W. TOP & BOTTOM
S4	4'-6"	3'-0"	#5'S @ 12" O.C. E.W. TOP & BOTTOM
S5	5'-6"	3'-0"	#5'S @ 12" O.C. E.W. TOP & BOTTOM
S6	6'-6"	3'-0"	#5'S @ 12" O.C. E.W. TOP & BOTTOM
S7	7'-6"	3'-0"	#5'S @ 12" O.C. E.W. TOP & BOTTOM

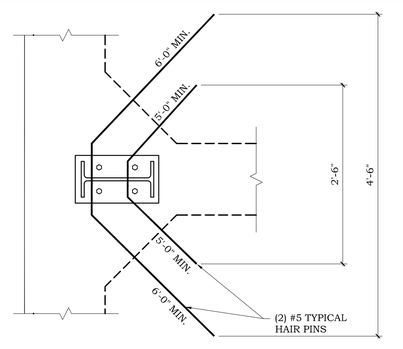


FOOTING SCHEDULE | 7

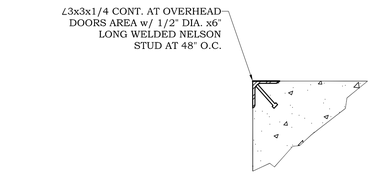


NOTE:
PROVIDE (4) #6 x 6'-0" CORNER BARS
(2-TOP & 2-BOTTOM) AS SHOWN IN DETAILS ABOVE

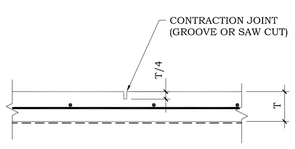
TYPICAL CORNER BARS | 2



TYPICAL HAIR PINS | 3

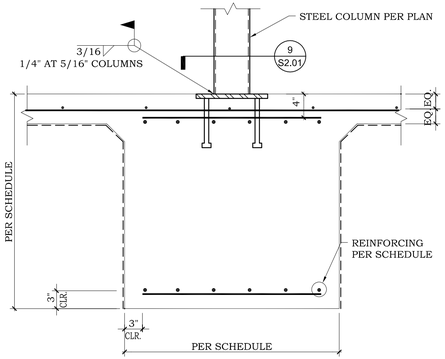


EXTERIOR FOOTING AT OVERHEAD DOOR | 15

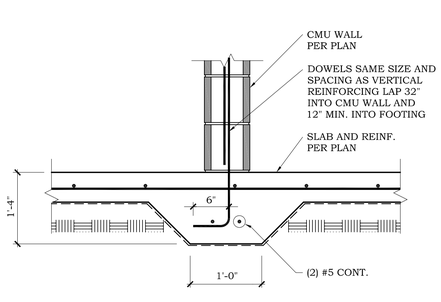


1. JOINT PATTERN SHALL BE NEARLY SQUARE
2. JOINT SPACING SHALL NOT EXCEED 15'-0"

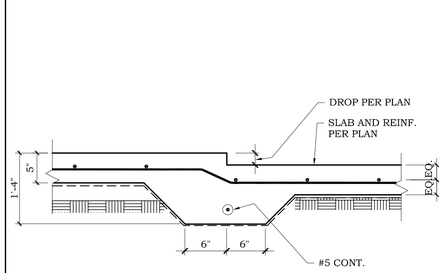
CONTRACTION JOINT DETAIL | 11



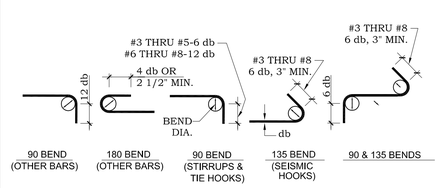
FOOTING AT STEEL COLUMN | 8



THICKENED SLAB AT NON BEARING CMU WALL | 16



DROP AT SLAB ON GRADE | 12



DIAMETER OF BENDS	
STIRRUPS AND TIES	4 db FOR #3 THRU #5 BARS
	6 db FOR #6 THRU #8 BARS
ALL OTHERS	6 db FOR #3 THRU #8 BARS
	8 db FOR #9 THRU #11 BARS
	10 db FOR #14 THRU #18 BARS

STANDARD HOOKS | 4

NOT USED | 19

NOT USED | 20

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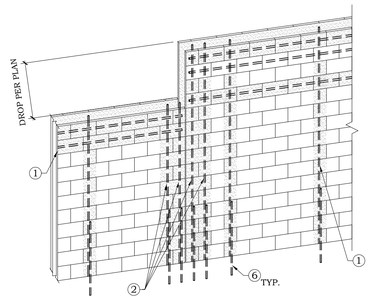
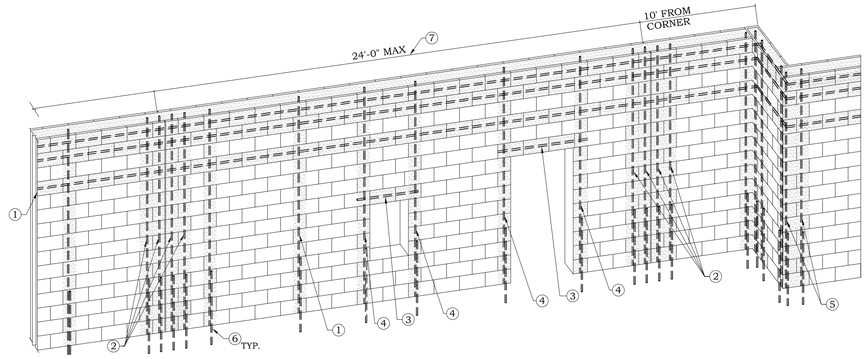
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

TYPICAL DETAILS

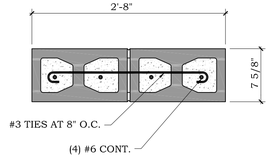
S2.01

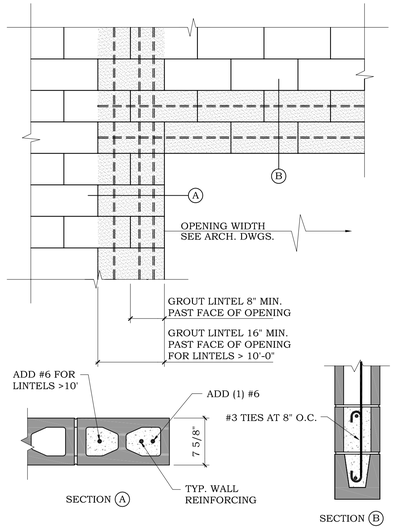
	① TYPICAL WALL REINFORCING AS CALLED OUT IN PLANS AND GENERAL NOTES. ② VERTICAL REINFORCING AT CONTROL JOINTS, REFER TO DETAIL 8/S2.02 ③ LINTELS PER LINTEL SCHEDULE, REFER TO DETAIL 7/S2.07 ④ ADDITIONAL VERTICAL REINFORCING AT JAMBS OF ALL OPENINGS ⑤ WALL CORNER REINFORCING, REFER TO DETAIL 2,3,4/S2.02 ⑥ DOWELS TO MATCH VERTICAL REINFORCEMENT PER PLAN, TYPICAL ⑦ CONTROL JOINT SPACING AS NOTED IS MAXIMUM ALLOWED, COORDINATE CONTROL JOINT LOCATIONS w/ARCHITECTURAL PLANS.

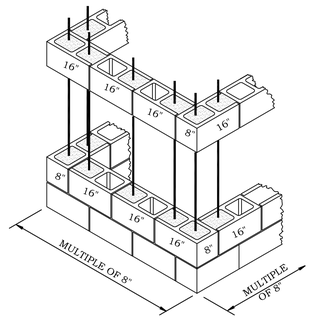


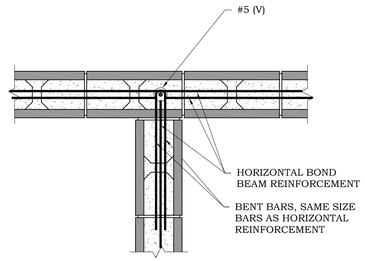


NOT USED	17	TYPICAL CMU WALL CONSTRUCTION	1				
NOT USED	18	NOT USED	14	8" PILASTER "P1"	10	TYPICAL CMU CORNER DETAIL	2
NOT USED	19	NOT USED	15	TYPICAL BOND BEAM INTERSECTION	11	LINTEL SCHEDULE	7	TYPICAL BOND BEAM CORNER	3
NOT USED	20	NOT USED	16	STEEL BEAM TO CMU WALL	12	CMU CONTROL JOINT (C.J.)	8	TYPICAL BOND BEAM CORNER	4

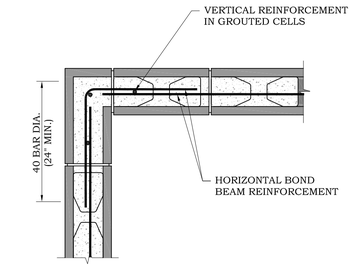


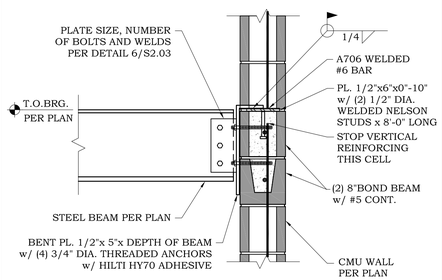


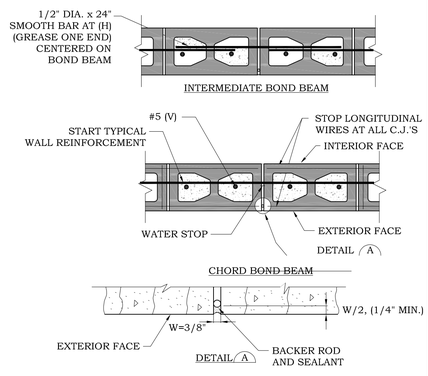


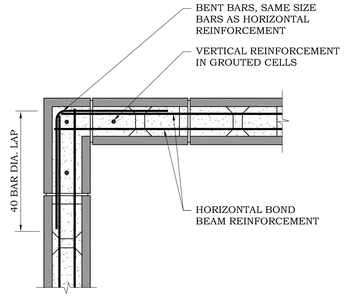


LINTEL SCHEDULE					
CLEAR SPAN	WIDTH	DEPTH	REINFORCING	#3 TIES AT:	REMARKS
<3'-4"	8"	8"	(1)#5		
<4'-8"	8"	16"	(1)#5 (T) & (B)	8"	
<6'-8"	8"	16"	(1)#6 (T) & (B)	8"	
<10'-0"	8"	24"	(1)#6 (T) & (B)	8"	
<12'-0"	8"	24"	(1)#7 (T) & (B)	8"	









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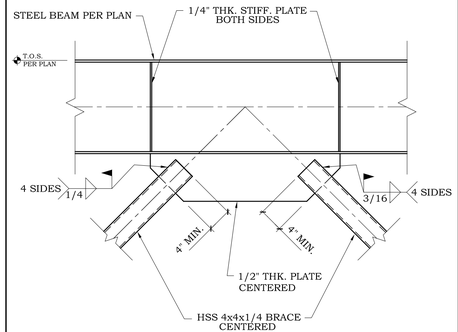
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

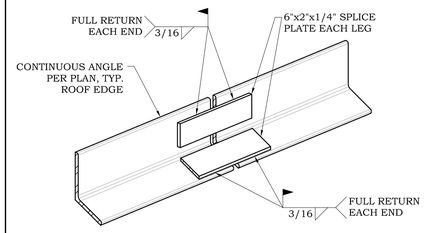
TYPICAL DETAILS

S2.02

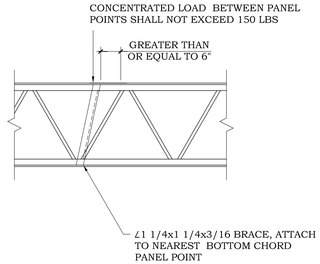
NOT USED 17



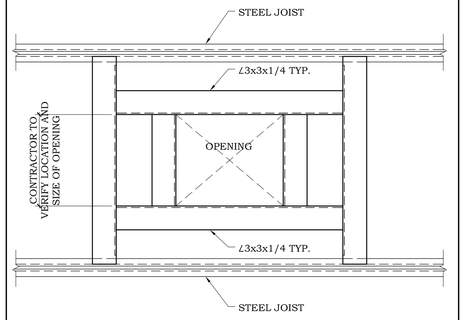
K-FRAME 1 13



TYPICAL ROOF EDGE ANGLE SPLICE DETAIL 9

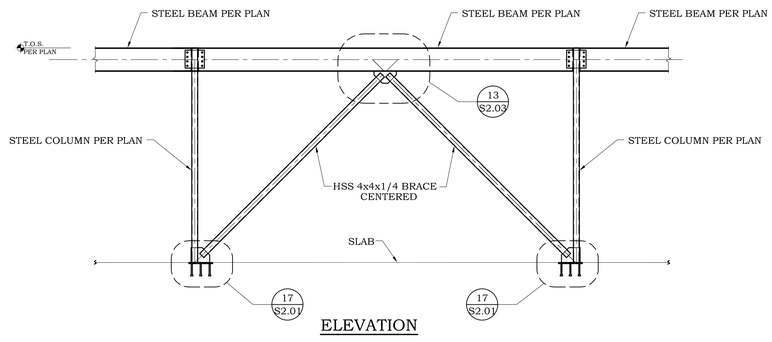


JOIST BRACING AT CONCENTRATED LOAD 5



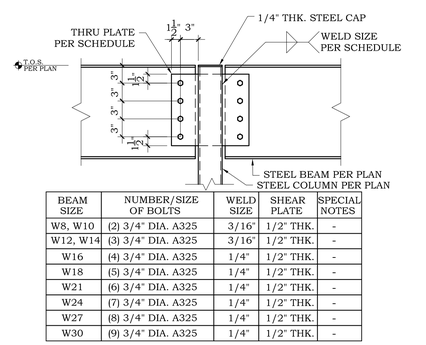
SUPPORT FOR METAL DECK OPENING 1

NOT USED 18



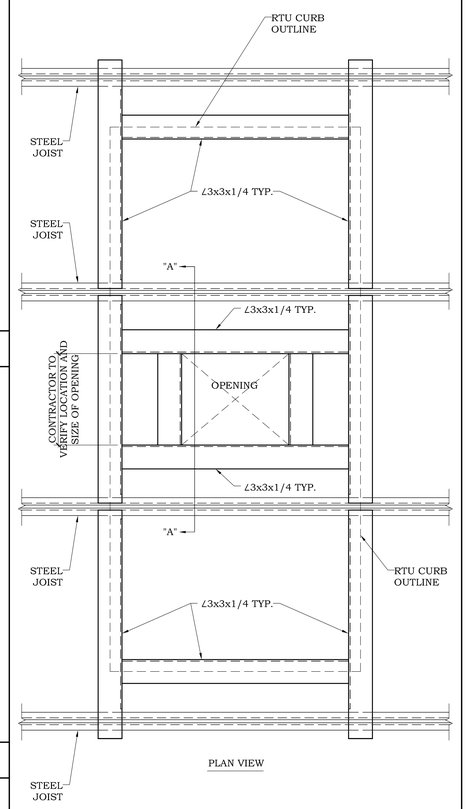
ELEVATION

K-FRAME 1 10



BEAM SIZE	NUMBER/SIZE OF BOLTS	WELD SIZE	SHEAR PLATE	SPECIAL NOTES
W8, W10	(2) 3/4" DIA. A325	3/16"	1/2" THK.	-
W12, W14	(3) 3/4" DIA. A325	3/16"	1/2" THK.	-
W16	(4) 3/4" DIA. A325	1/4"	1/2" THK.	-
W18	(5) 3/4" DIA. A325	1/4"	1/2" THK.	-
W21	(6) 3/4" DIA. A325	1/4"	1/2" THK.	-
W24	(7) 3/4" DIA. A325	1/4"	1/2" THK.	-
W27	(8) 3/4" DIA. A325	1/4"	1/2" THK.	-
W30	(9) 3/4" DIA. A325	1/4"	1/2" THK.	-

STEEL COLUMN TO STEEL BEAM CONNECTION 6



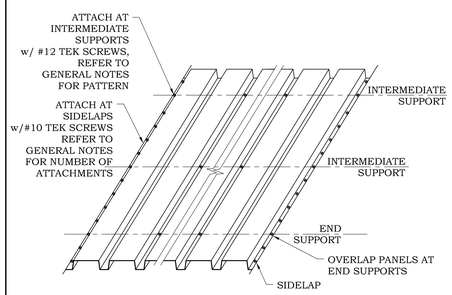
PLAN VIEW

NOT USED 19

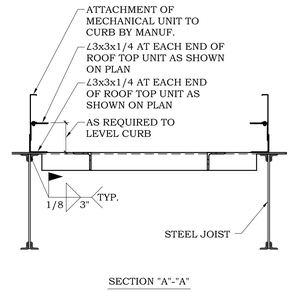
NOT USED 15

NOT USED 11

NOT USED 7



TYPICAL METAL DECK ATTACHMENT 8



SECTION "A"-"A"

SUPPORT FOR MECHANICAL UNIT 4

NOT USED 20

NOT USED 16

NOT USED 12

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JOB #:	16170
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DRAWN BY:	RGV
CHECKED BY:	MC

TYPICAL DETAILS

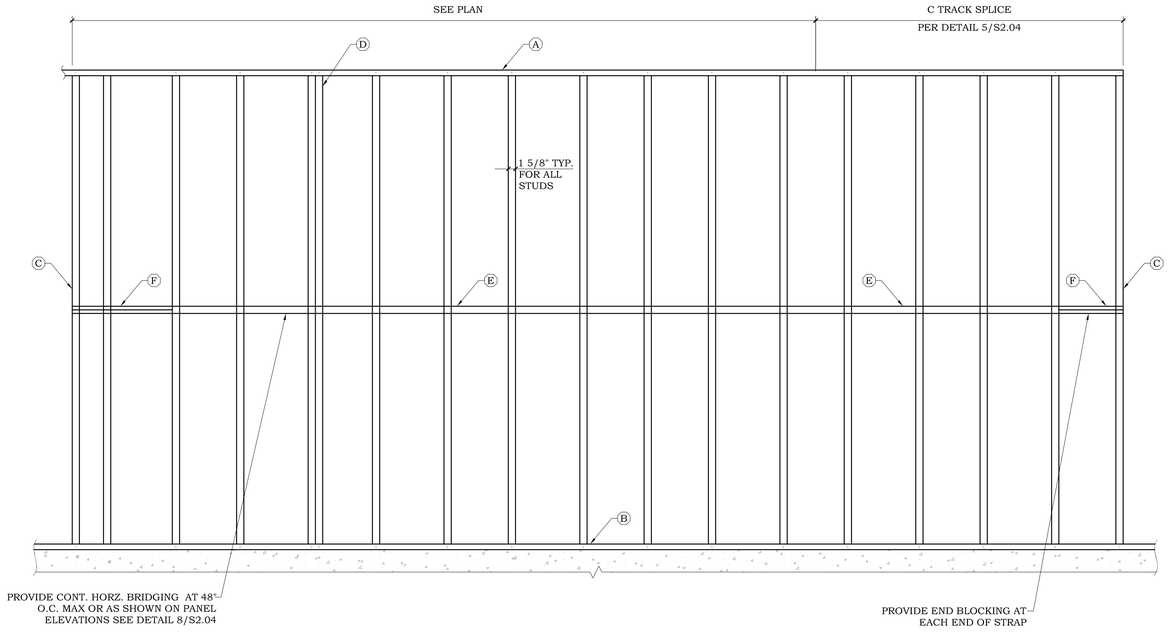
S2.03

MARK	DESCRIPTION	SIZE(")
A.	TOP TRACK	6" x 16 Ga.
B.	BOTTOM TRACK	6" x 16 Ga.
C.	STUD	6" x 16 Ga.
D.	DOUBLE STUD	(2) 6" x 16 Ga.
E.	BRIDGING	1 1/2 x16 Ga.
F.	BLOCKING	6" x 20 Ga.

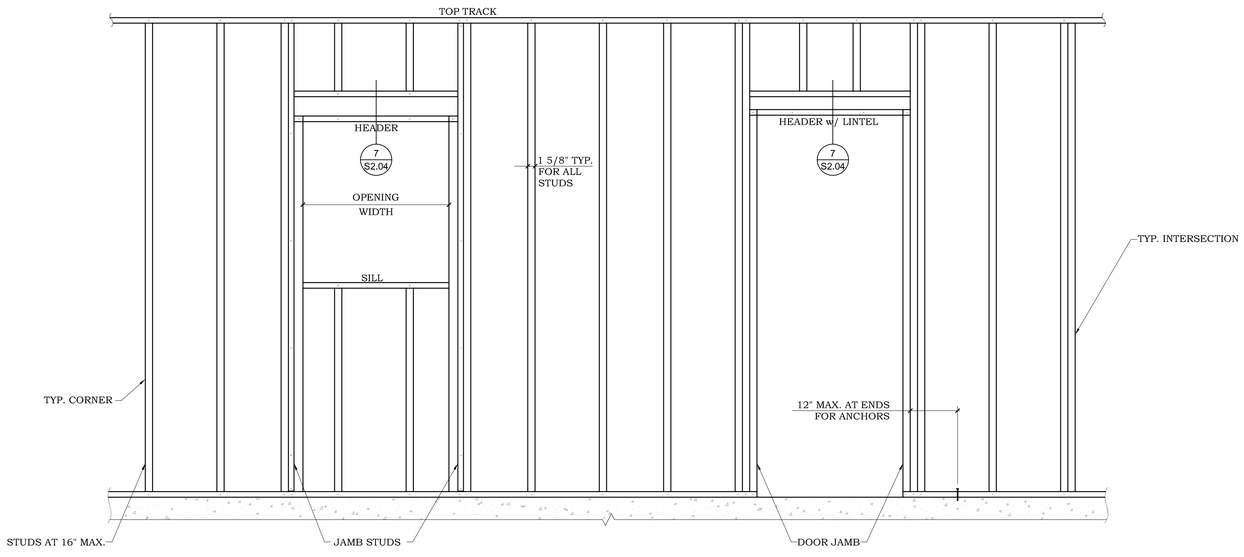
NOTE:
1. MEMBER SIZES SHOWN IN THIS DETAIL ARE TYPICAL EXCEPT AS OTHERWISE SHOWN ON THE PLAN OR SPECIFIC PANEL ELEVATIONS.

2. ALL STUDS SHALL BE SPACED AT 16" O.C. EXCEPT AS SHOWN OTHERWISE AND AS NOTED BELOW.

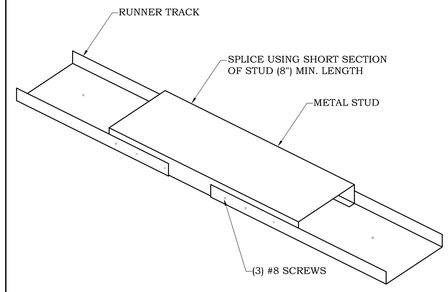
3. LOAD BEARING STUDS SHALL BE SPACED SO AS TO FALL DIRECTLY UNDER ROOF TRUSSES / RAFTERS OR UNDER FLOOR JOISTS.



EXTERIOR METAL STUD WALL ELEVATION | 10

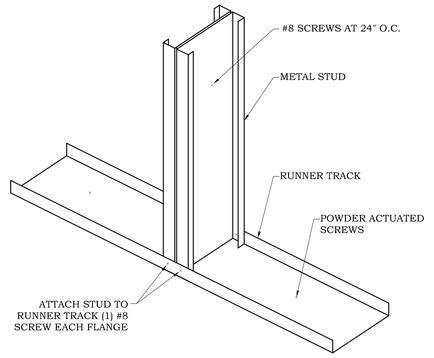


METAL STUD WALL ELEVATION WITH OPENING | 12

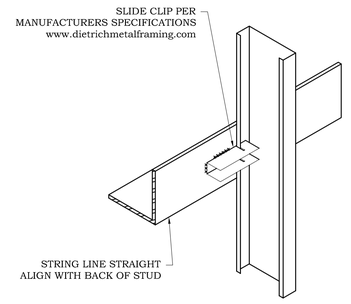


RUNNER TRACK SPLICE | 5

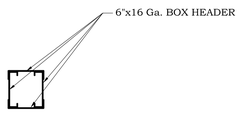
NOT USED | 1



DOUBLE STUD ATTACHMENT TO RUNNER TRACK | 6

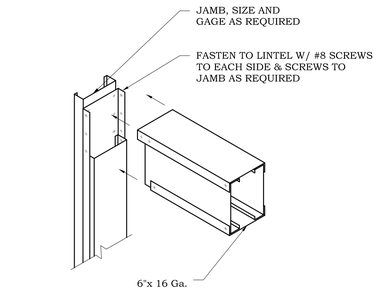


SLIDE CLIP DETAIL | 2

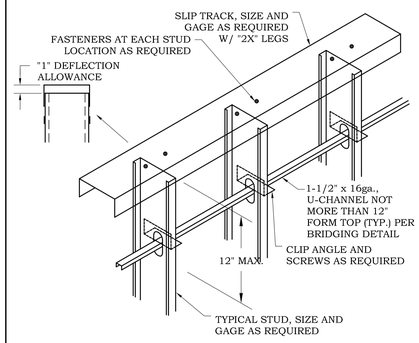


NOTE: FOR JAMB CONNECTION SEE DETAIL 3/S2.04

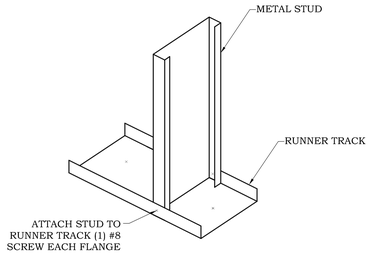
BOXED HEADER | 7



BOXED HEADER TO JAMB CONNECTION | 3



U-CHANNEL TO TYPICAL STUDS | 8



STUD ATTACHMENT TO RUNNER TRACK | 4

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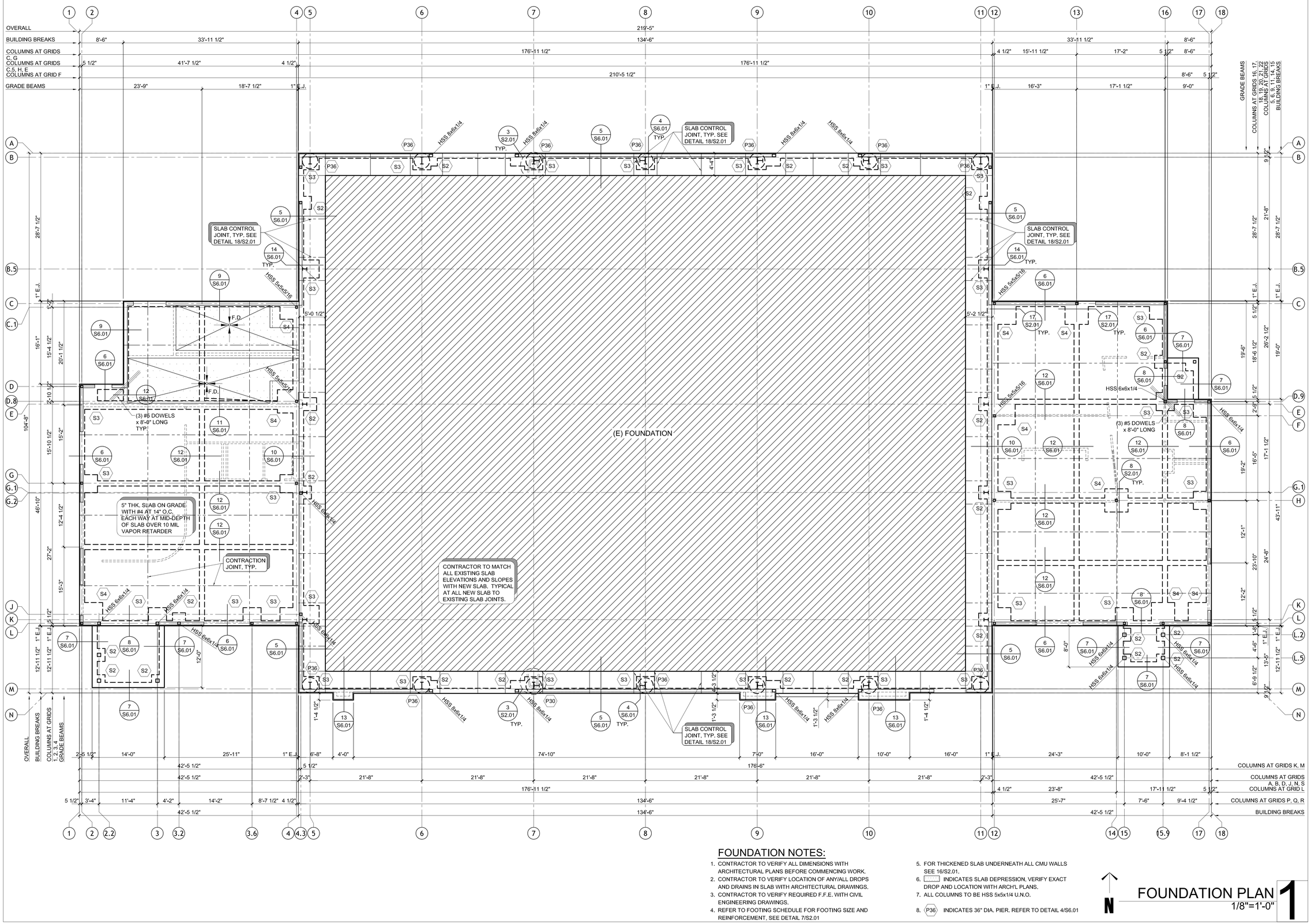
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

TYPICAL DETAILS

S2.04



FOUNDATION NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. CONTRACTOR TO VERIFY LOCATION OF ANY/ALL DROPS AND DRAINS IN SLAB WITH ARCHITECTURAL DRAWINGS.
3. CONTRACTOR TO VERIFY REQUIRED F.F.E. WITH CIVIL ENGINEERING DRAWINGS.
4. REFER TO FOOTING SCHEDULE FOR FOOTING SIZE AND REINFORCEMENT, SEE DETAIL 7/S2.01
5. FOR THICKENED SLAB UNDERNEATH ALL CMU WALLS SEE 16/S2.01.
6. ▭ INDICATES SLAB DEPRESSION, VERIFY EXACT DROP AND LOCATION WITH ARCH'L PLANS.
7. ALL COLUMNS TO BE HSS 5x5x1/4 U.N.O.
8. (P36) INDICATES 36" DIA. PIER. REFER TO DETAIL 4/S6.01

N

FOUNDATION PLAN 1

1/8"=1'-0"

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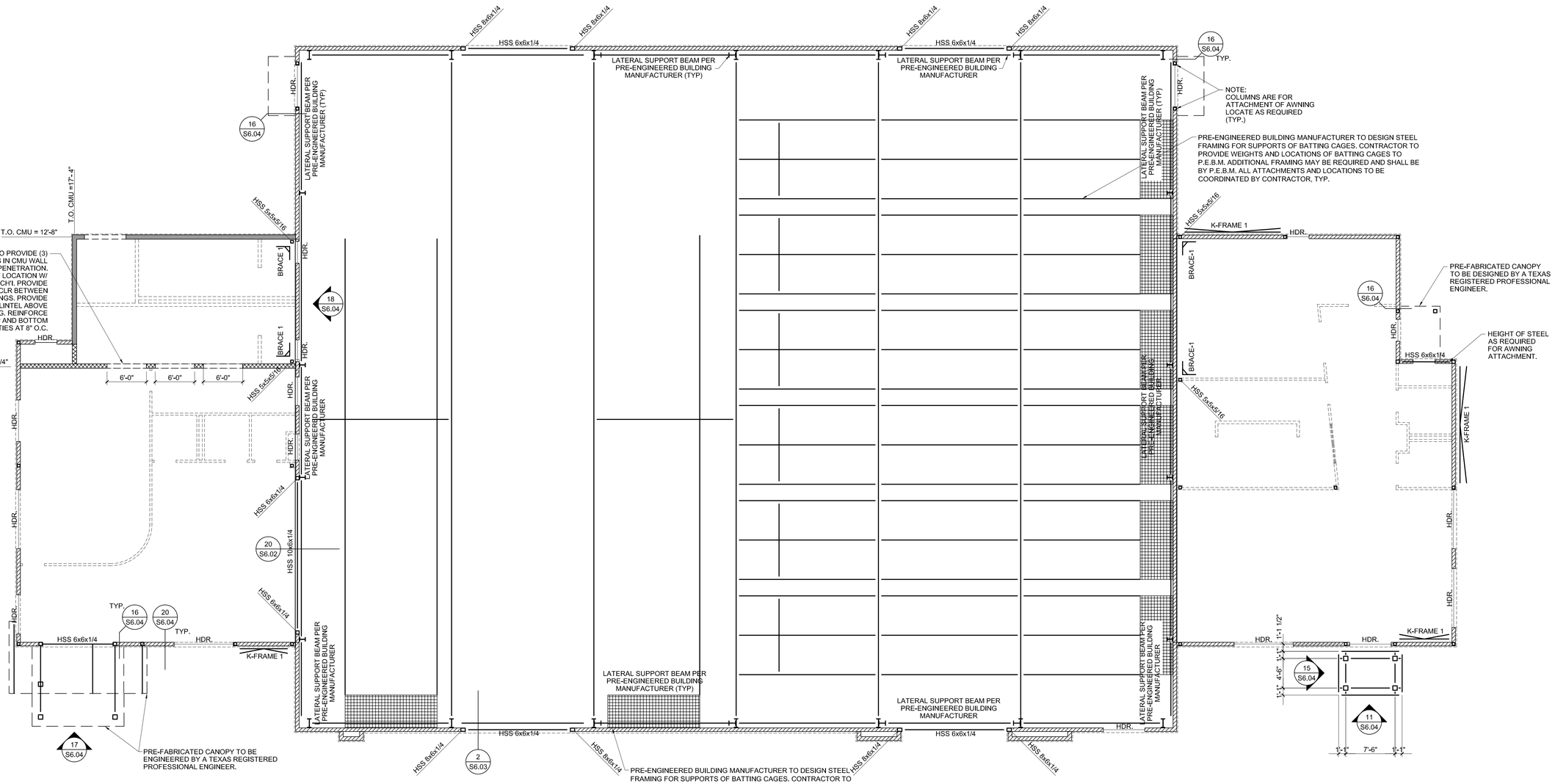
FOUNDATION PLAN

S3.01



WALL LAYOUT NOTES:

1. IF ANY DISCREPANCIES ARE FOUND BETWEEN THESE DRAWINGS AND THE ARCHITECTURAL DRAWINGS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER BEFORE COMMENCING CONSTRUCTION.
2. FOR TYPICAL CMU WALL CONSTRUCTION SEE SHEET S2.02
3. INDICATES EXTERIOR 8" CMU WALL WITH #5 (V) AT 32" O.C. AND #5 (H) AT 8'-0" O.C., U.N.O.
4. INDICATES INTERIOR 8" CMU WALL WITH #5 (V) AT 48" O.C. AND #5 (H) AT 8'-0" O.C., U.N.O.
5. INDICATES WALL FRAMED WITH 600S162-54 (50 KSI) METAL STUDS AT 16" O.C., U.N.O.
6. INDICATES LINTEL, SEE DETAIL 7/S2.02
7. FOR SPECIAL INSPECTION REQUIREMENTS SEE GENERAL NOTES.
8. ALL TOP OF WALLS FROM FINISH FLOOR ELEVATION 0'-0".
9. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION, LENGTH, AND HEIGHT OF ALL OPENINGS IN CMU WALLS.
10. FOR CONTROL JOINT LOCATIONS, SEE ARCHITECTURAL DRAWINGS.
11. PROVIDE CMU LINTEL OVER ALL MECHANICAL SYSTEM PENETRATION1 IN CMU WALL. COORDINATE WITH MEP DRAWINGS FOR ALL LOCATIONS.
12. 8" CMU WALL IS A NOMINAL DIMENSION, ACTUAL WIDTH IS 7 5/8".
13. INDICATES K FRAME 1 SEE DETAIL 10/S2.03
14. REFER TO BATTING CAGE MANUF. FOR SYSTEM WEIGHT AND SUPPORT
13. INDICATES BRACE -1 SEE DETAIL 18/S6.04

N

WALL LAYOUT PLAN 1
1/8"=1'-0"

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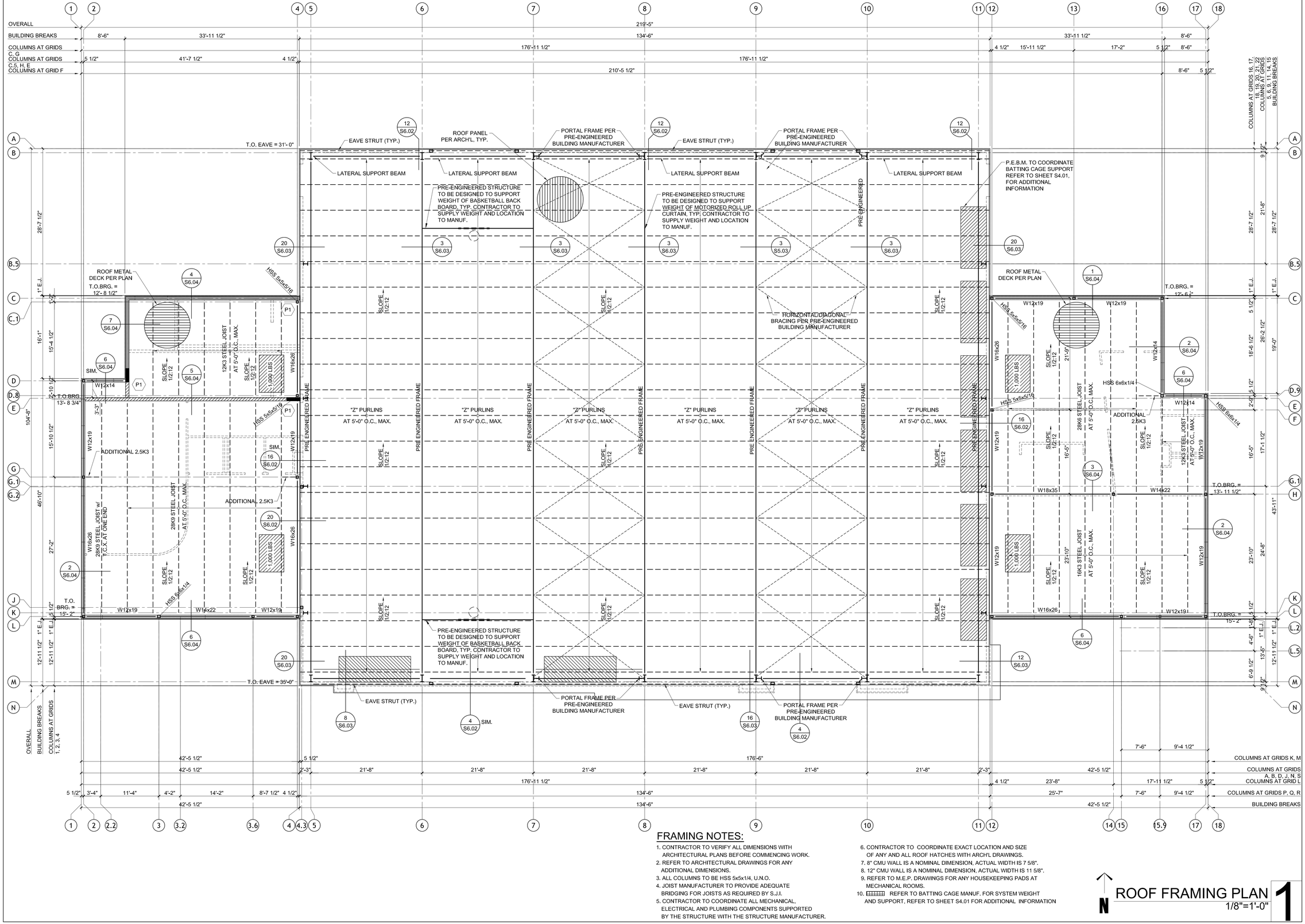
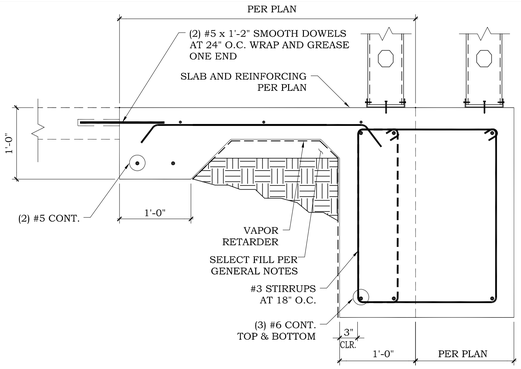
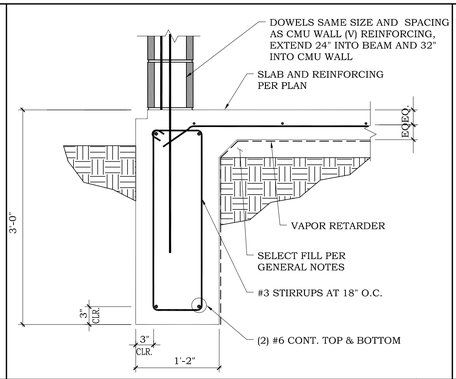
WALL LAYOUT PLAN

S4.01

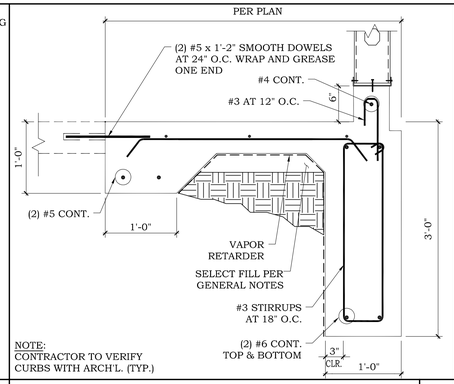

OVERALL
BUILDING BREAKS
COLUMNS AT GRIDS
C-C COLUMNS AT GRIDS
C.5, H, E COLUMNS AT GRID F
8'-6"
33'-11 1/2"
219'-5"
134'-6"
176'-11 1/2"
41'-7 1/2"
4 1/2"
210'-5 1/2"
15'-11 1/2"
17'-2"
5 1/2"
COLUMNS AT GRIDS 16, 17, 18, 19, 20, 21, 22
COLUMNS AT GRIDS 1, 5, 6, 8, 11, 12, 15
BUILDING BREAKS
T.O. EAVE = 31'-0"
T.O. EAVE = 35'-0"
EAVE STRUT (TYP.)
ROOF PANEL PER ARCH'L, TYP.
PORTAL FRAME PER PRE-ENGINEERED BUILDING MANUFACTURER
LATERAL SUPPORT BEAM
PRE-ENGINEERED STRUCTURE TO BE DESIGNED TO SUPPORT WEIGHT OF BASKETBALL BACK BOARD, TYP. CONTRACTOR TO SUPPLY WEIGHT AND LOCATION TO MANUF.
PRE-ENGINEERED STRUCTURE TO BE DESIGNED TO SUPPORT WEIGHT OF MOTORIZED ROLL UP CURTAIN, TYP. CONTRACTOR TO SUPPLY WEIGHT AND LOCATION TO MANUF.
P.E.B.M. TO COORDINATE BATTING CAGE SUPPORT REFER TO SHEET S4.01, FOR ADDITIONAL INFORMATION
ROOF METAL DECK PER PLAN
T.O.BRG. = 12'- 8 1/2"
T.O.BRG. = 13'- 8 3/4"
T.O.BRG. = 15'- 2"
T.O.BRG. = 13'- 11 1/2"
HORIZONTAL/DIAGONAL BRACING PER PRE-ENGINEERED BUILDING MANUFACTURER
"Z" PURLINS AT 5'-0" O.C., MAX.
PRE ENGINEERED FRAME
SLOPE 1/2:12
1,000 LBS
ADDITIONAL 2.5K3
28K9 STEEL JOIST AT 5'-0" O.C., MAX.
28K6 STEEL JOIST AT 5'-0" O.C., MAX.
16K3 STEEL JOIST AT 5'-0" O.C., MAX.
12K3 STEEL JOIST AT 5'-0" O.C., MAX.
W16x26
W12x19
W12x14
W18x35
W14x22
HSS 5x5x5/16
HSS 6x6x1/4
HSS 5x5x1/4
W12x19 W12x19
W16x26 W12x14
W16x26 W12x19
W16x26 W12x19
W12x19 W12x19
W16x26 W12x19
W12x19 W12x19
W16x26 W12x19
W12x19



EXTERIOR GRADE BEAM | 13

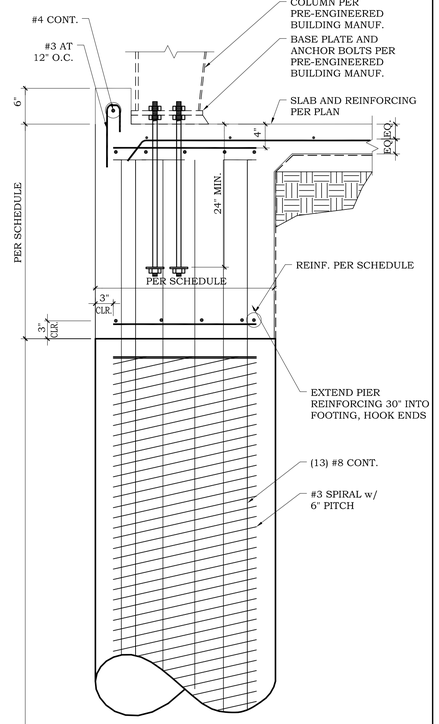


EXTERIOR GRADE BEAM | 9



NOTE:
CONTRACTOR TO VERIFY CURBS WITH ARCH'L. (TYP.)

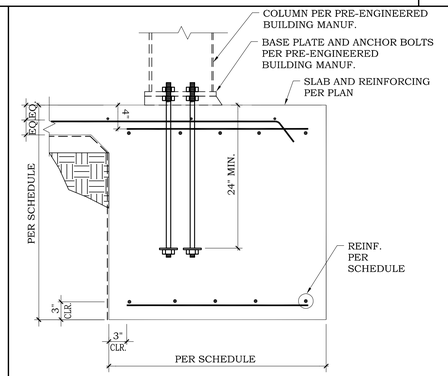
EXTERIOR GRADE BEAM | 5



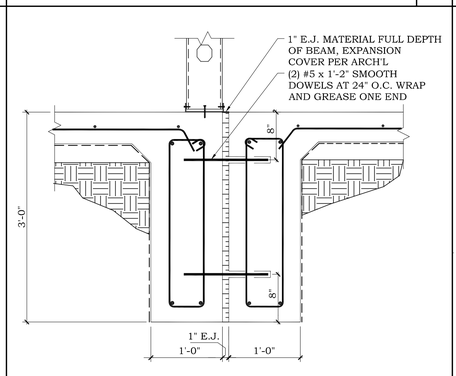
NOTE:
IF ANY GROUND WATER IS ENCOUNTERED DURING DRILLING OPERATIONS, STEEL CASING MAY BE REQUIRED.

PIER DETAIL "P36" | 4

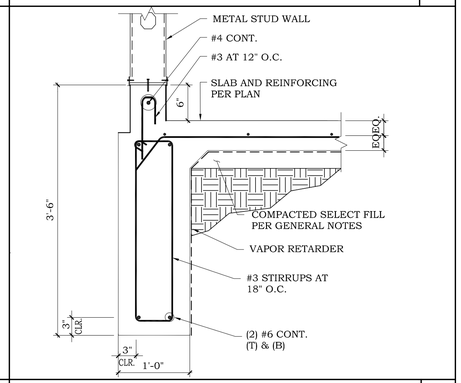
NOT USED | 18



FOOTING AT STEEL COLUMN | 14



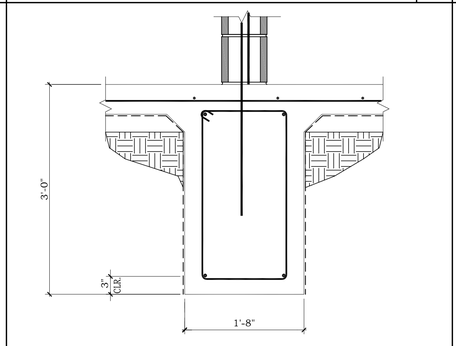
EXPANSION JOINT | 10



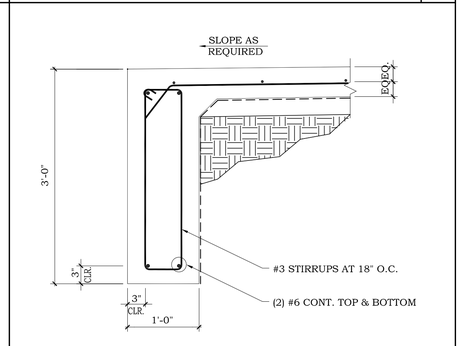
EXTERIOR GRADE BEAM | 6

NOT USED | 19

NOT USED | 15



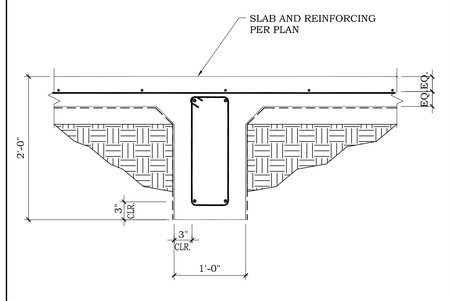
INTERIOR GRADE BEAM | 11



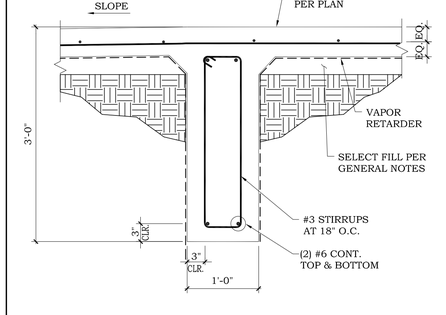
EXTERIOR GRADE BEAM | 7

NOT USED | 20

NOT USED | 16



INTERIOR GRADE BEAM | 12



EXTERIOR GRADE BEAM | 8

CHANIN ENGINEERING, LLC
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PALMER PAVILION RENOVATION
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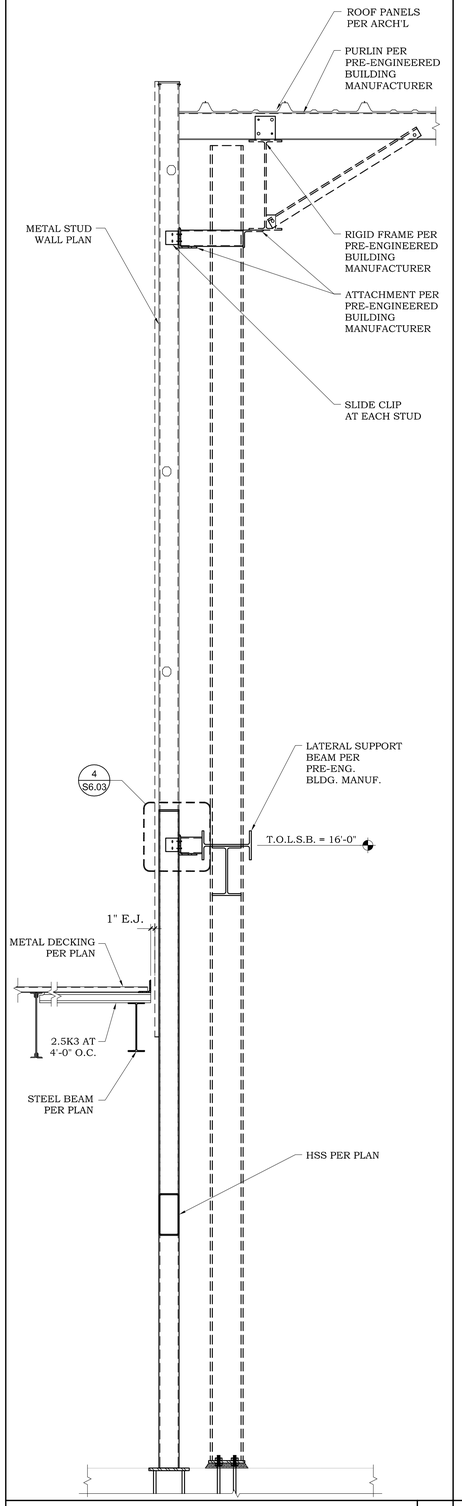
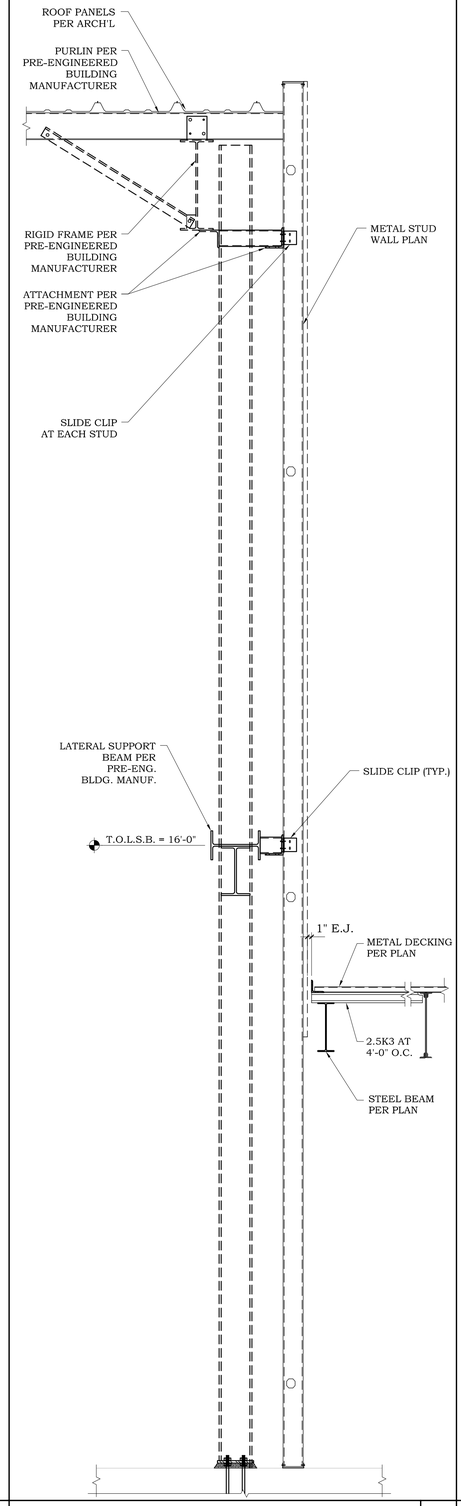
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

DETAILS

S6.01

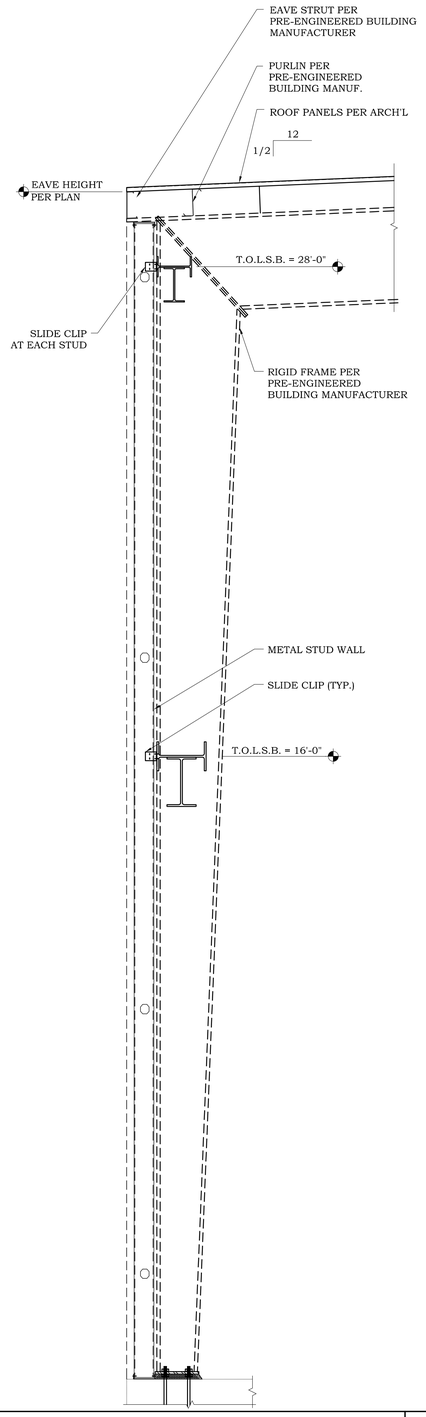


RIGID FRAME DETAIL 20

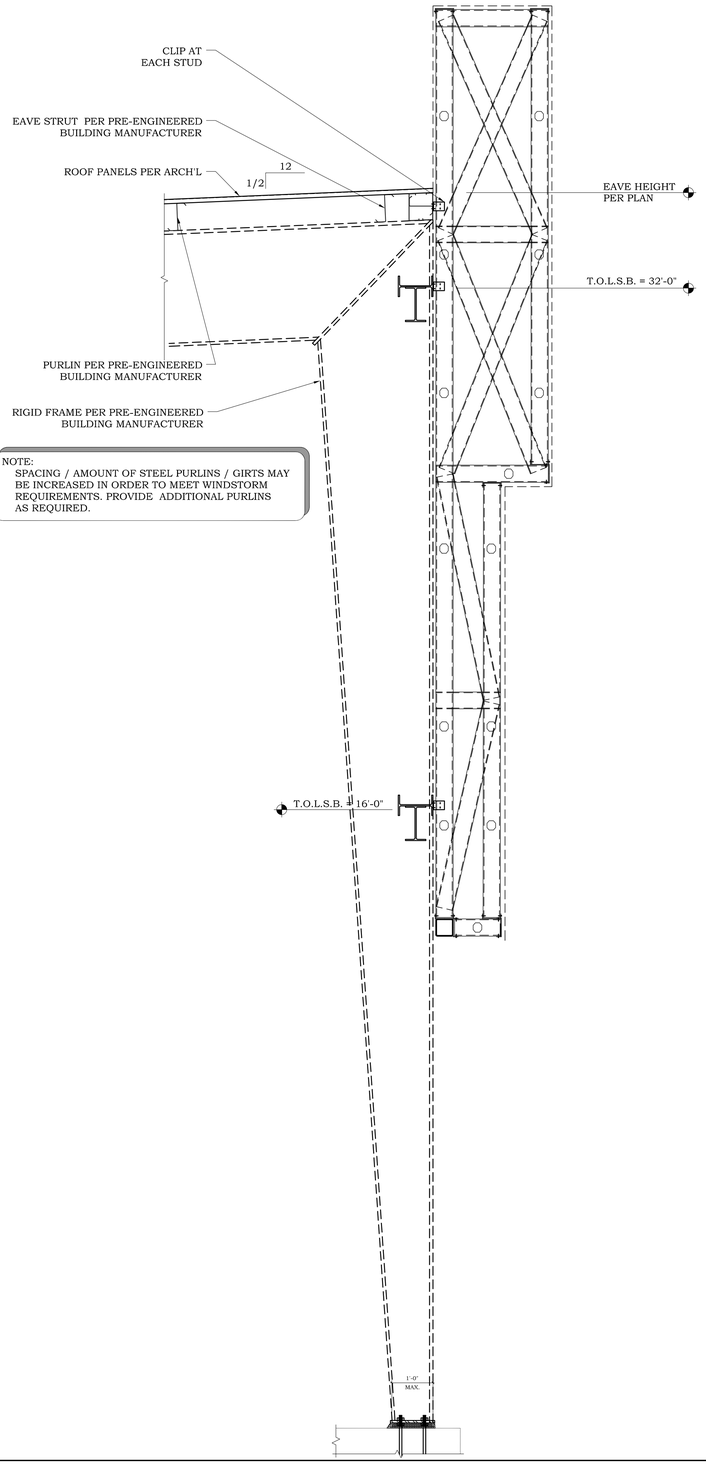


RIGID FRAME DETAIL 16

NOTE:
SPACING / AMOUNT OF STEEL PURLINS / GIRTS MAY BE INCREASED IN ORDER TO MEET WINDSTORM REQUIREMENTS. PROVIDE ADDITIONAL PURLINS AS REQUIRED.



RIGID FRAME DETAIL 12



NOTE:
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RIGID FRAME DETAIL 4

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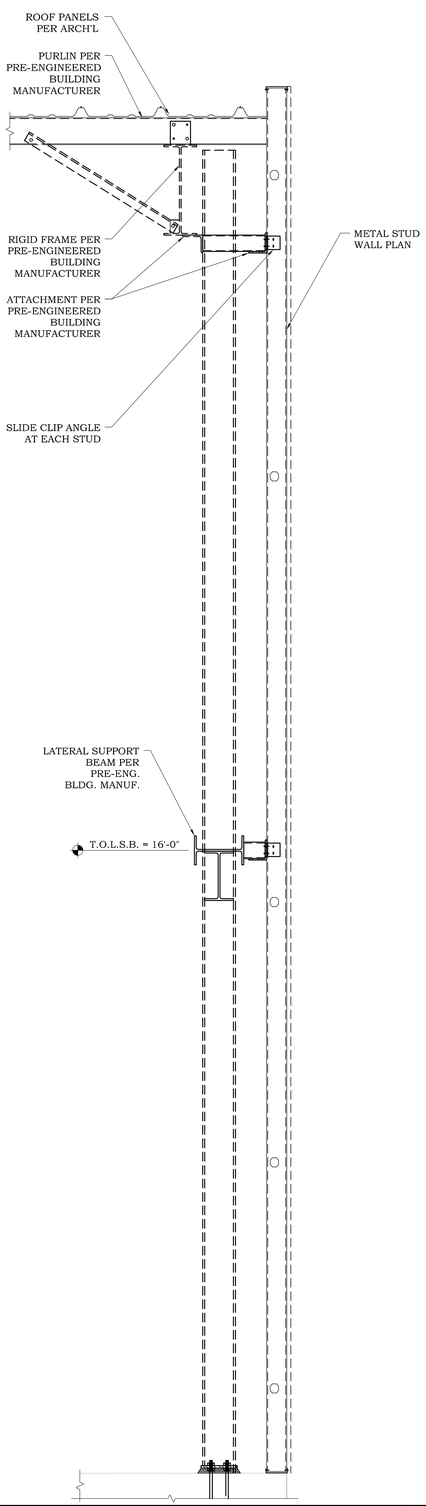
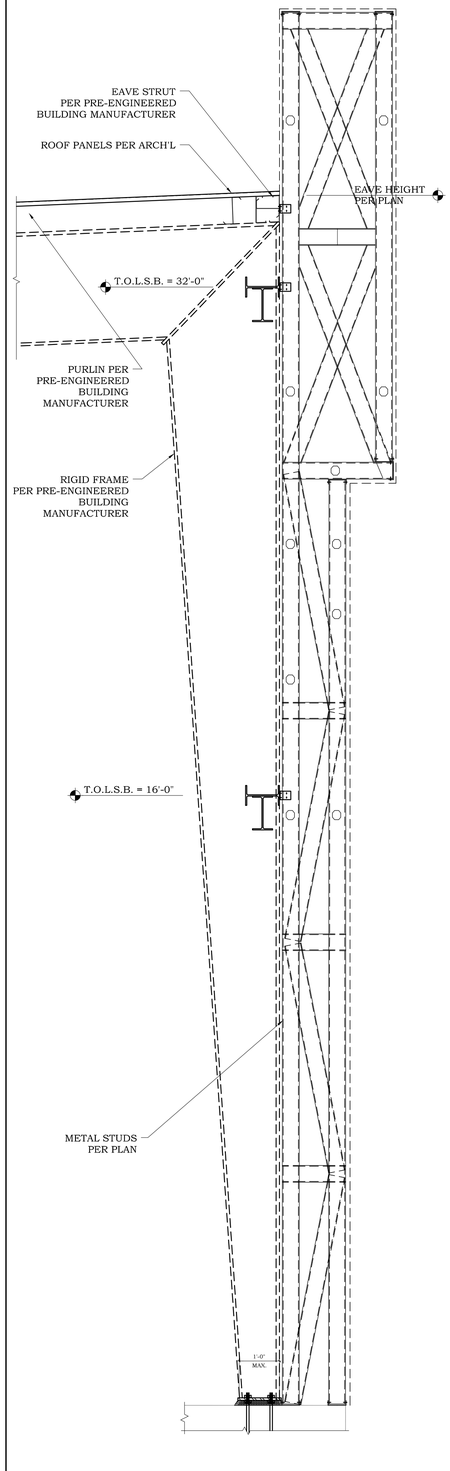
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

FRAMING DETAILS

S6.02



RIGID FRAME DETAIL | 20



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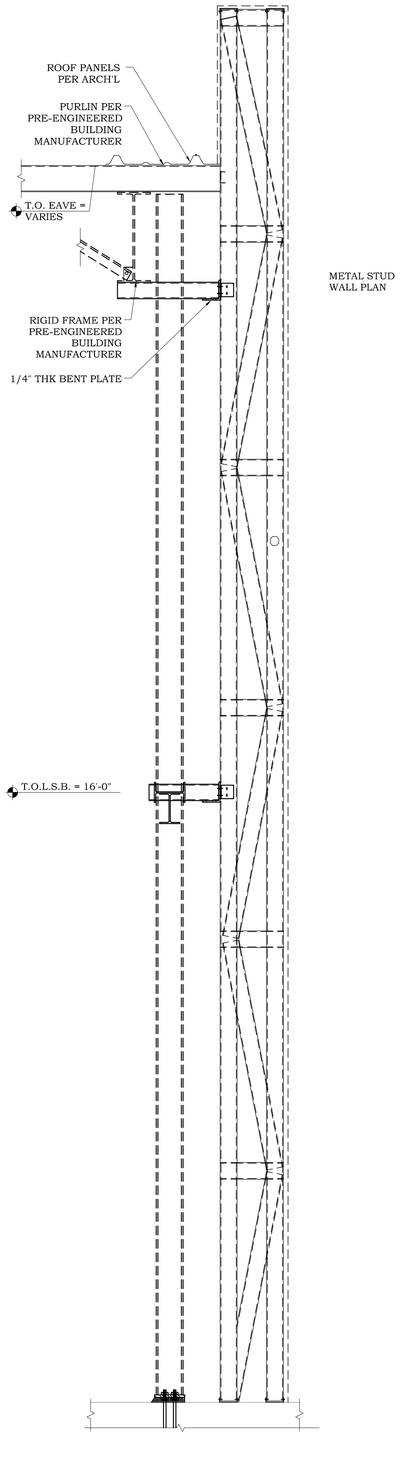

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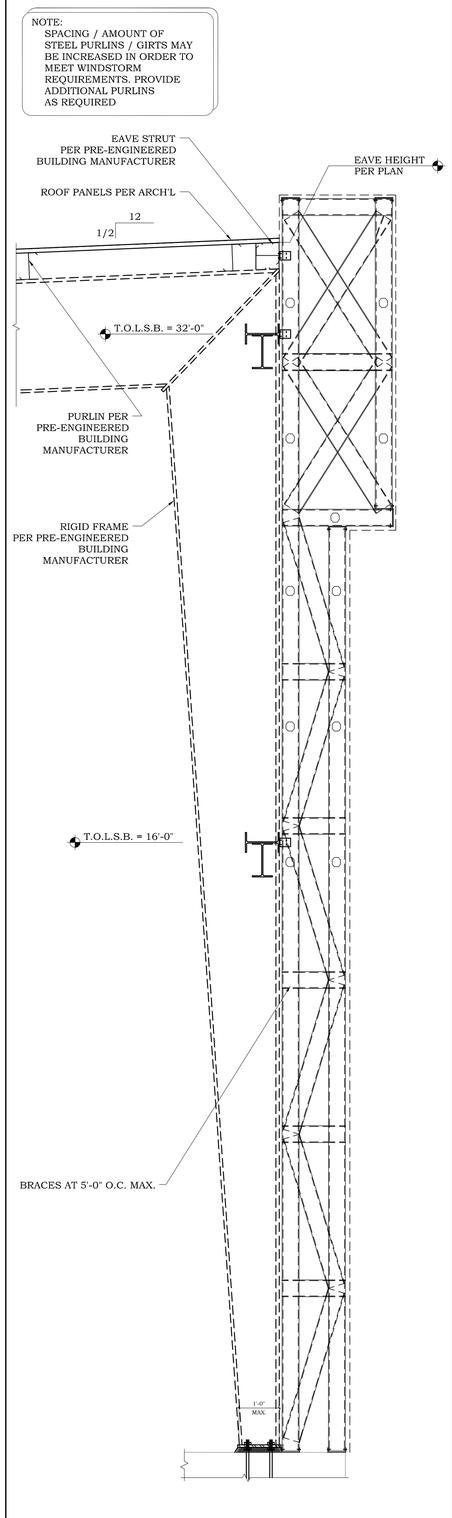
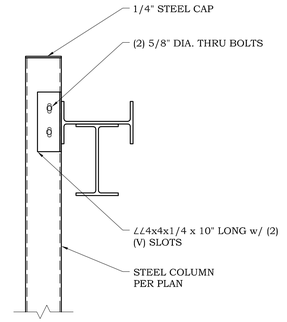
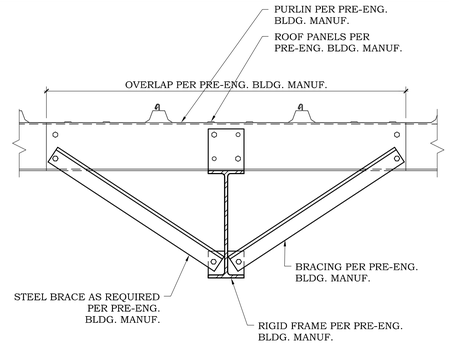


RIGID FRAME DETAIL | 8

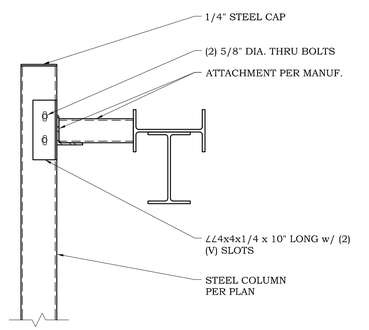
NOT USED | 1



STEEL COLUMN TO LATERAL SUPPORT BEAM | 2



RIGID FRAME DETAIL | 3



STEEL COLUMN TO LATERAL SUPPORT BEAM | 4

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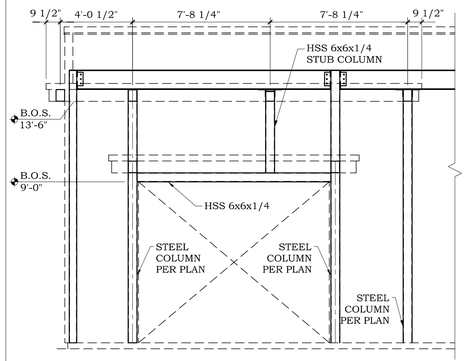
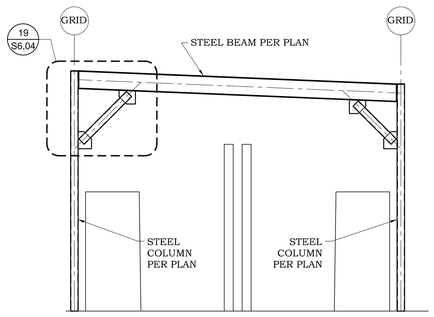
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

FRAMING DETAILS

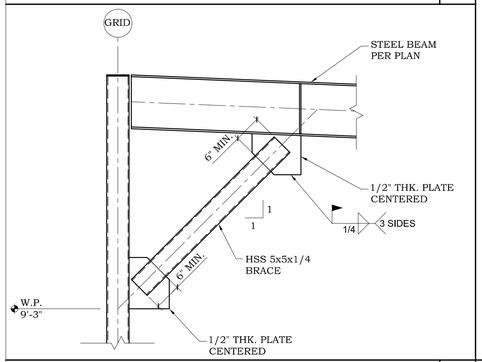
S6.03



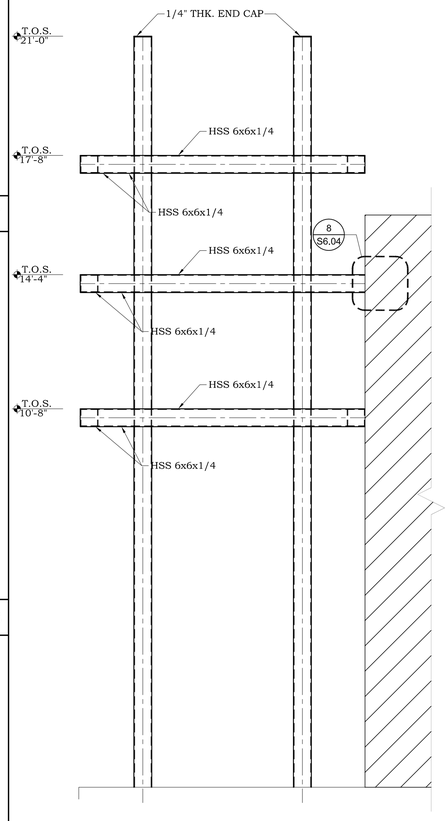
FRONT CANOPY ELEVATION | 17



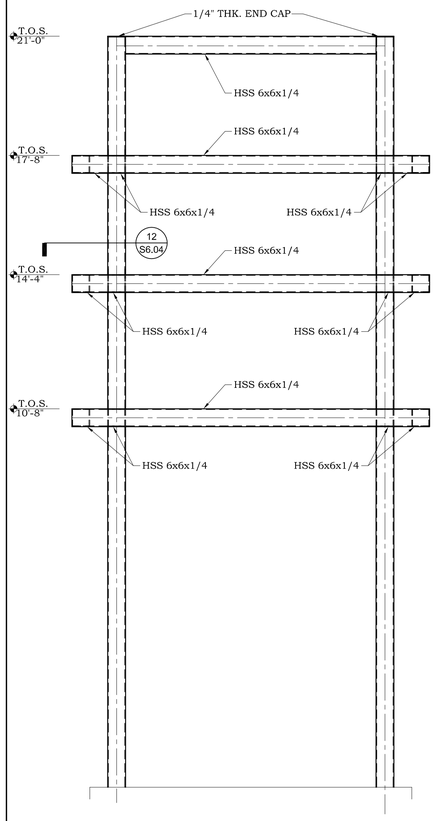
BRACE 1 ELEVATION | 18



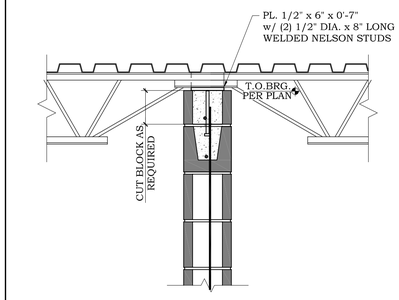
BRACE DETAIL | 19



FRAME ELEVATION | 15

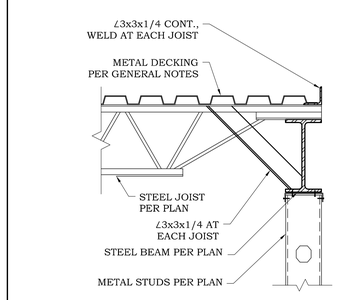


FRAME ELEVATION | 11

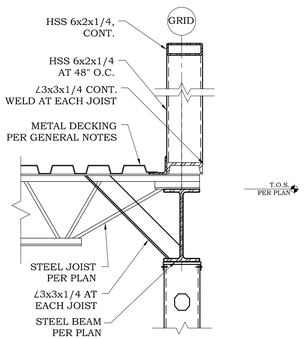


NOTE: OFFSET STEEL JOISTS AS REQUIRED TO ACHIEVE PROPER BEARING.

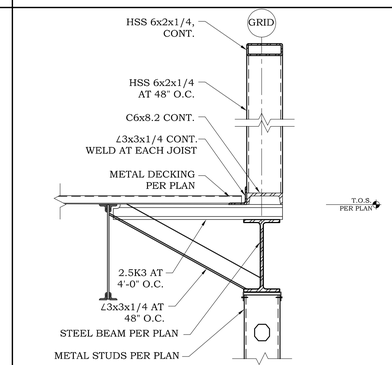
STEEL JOIST TO CMU WALL | 5



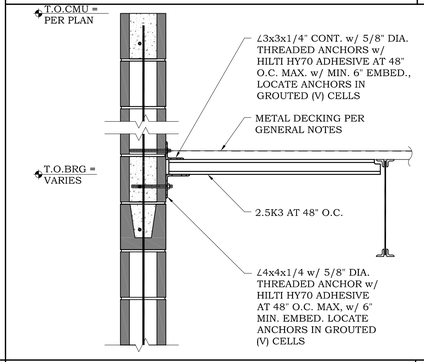
CURTAIN WALL TO STRUCTURE ATTACHMENT | 1



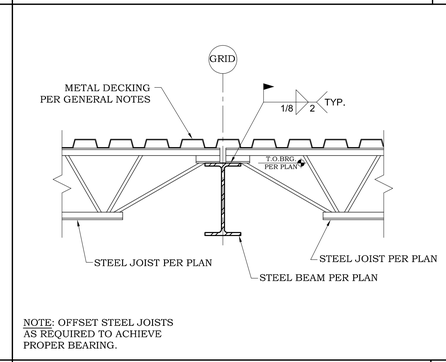
CURTAIN WALL TO STRUCTURE ATTACHMENT | 6



CURTAIN WALL TO STRUCTURE ATTACHMENT | 2

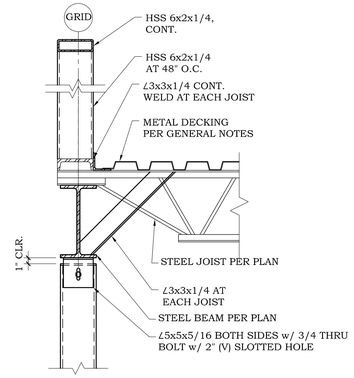


STEEL JOIST TO CMU WALL | 7

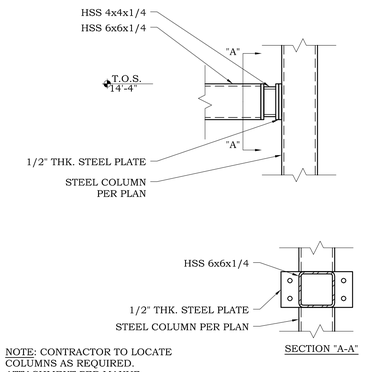


NOTE: OFFSET STEEL JOISTS AS REQUIRED TO ACHIEVE PROPER BEARING.

STEEL JOIST TO STEEL BEAM CONNECTION | 3

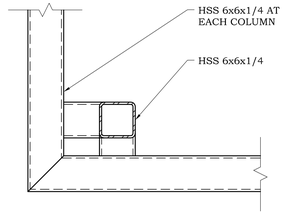


CANOPY COLUMN TO STEEL BEAM (TYP) | 20

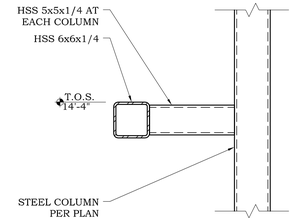


NOTE: CONTRACTOR TO LOCATE COLUMNS AS REQUIRED. ATTACHMENT PER MANUF.

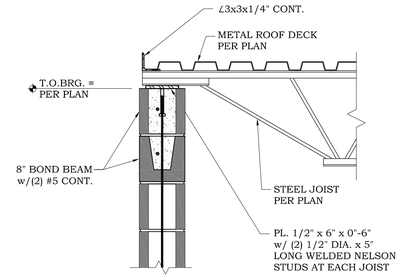
CANOPY/AWNING CONNECTION TO STRUCTURAL STEEL | 16



STEEL BEAM TO STEEL COLUMN | 12



STEEL BEAM TO STEEL COLUMN AT TOWER | 8



STEEL JOIST TO CMU WALL | 4

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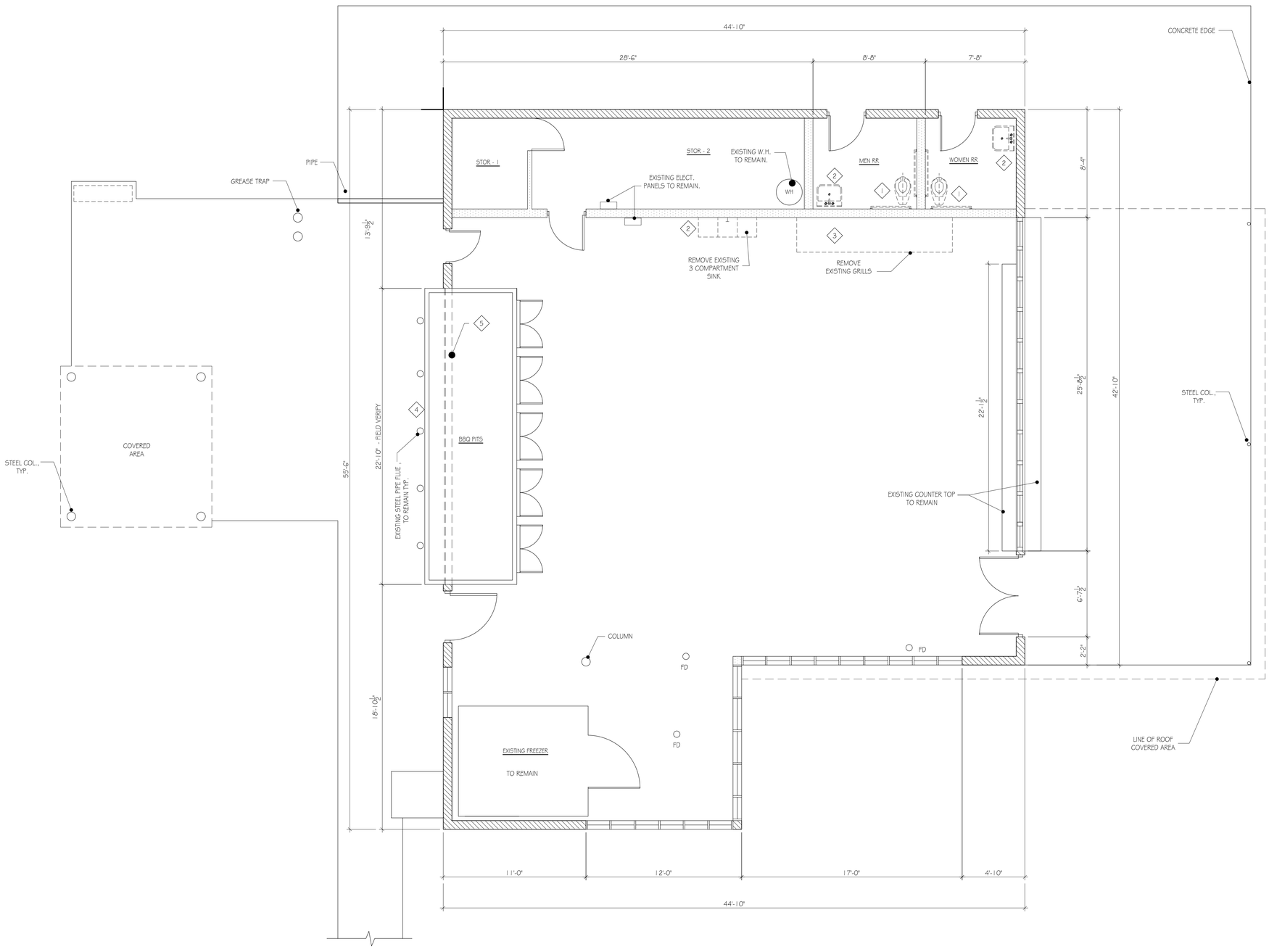
JOB #:	16170
PHASE:	100% CD
DATE:	9.09.2016
DRAWN BY:	RGV
CHECKED BY:	MC

DETAILS

S6.04



N

EXISTING / DEMO KITCHEN FLOOR PLAN

1/4" = 1'-0"

1

GENERAL DEMOLITION NOTES

1. NO WORK IS TO COMMENCE UNTIL PLANS HAVE BEEN APPROVED BY THE CITY OF MCALLEN, TEXAS - AND A PERMIT FOR DEMOLITION HAS BEEN OBTAINED BY THE GENERAL CONTRACTOR.

2. THE CONTRACTOR SHALL REQUEST ALL INSPECTIONS REQUIRED BY LOCAL GOVERNMENTAL AGENCIES AND COORDINATE HIS WORK WITH SUCH.

3. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD AND NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES, WHERE ENCOUNTERED, MAKE ALL NECESSARY ARRANGEMENTS FOR SUPPORT, BRACING, SHORE-UP, REROUTE OR UTILITY DISCONNECTIONS AS REQUIRED BY APPLICABLE LOCAL OR PRIVATE UTILITY COMPANIES.

5. ALL DEMOLITION SHALL BE UNDERTAKEN W/ EXTREME CARE SO AS TO NOT DISTURB EXISTING STRUCTURAL ELEMENTS (COLUMNS, BEARING WALLS, ETC).

6. ALL DEMOLITION SHALL BE SCHEDULED SUCH THAT NO PORTION OF THE BUILDING IS EXPOSED TO THE WEATHER FOR AN UNNECESSARY PERIOD OF TIME OR DURING INCLEMENT WEATHER.

7. ALL DEBRIS SHALL BE REMOVED FROM THE SITE DAILY AND DISPOSED OF LEGALLY AT THE EXPENSE OF THE DEMOLITION CONTRACTOR.

8. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE W/ THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. EXAMINE ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

9. PROMPTLY PATCH AND REPAIR HOLES & DAMAGE SURFACES OF BUILDING CAUSED BY DEMOLITION. RESTORE EXPOSED FINISH OF PATCHED AREAS AND EXTEND FINISH RESTORATION INTO REMAINING ADJOINING CONSTRUCTION.

LEGEND

PRIOR TO THE DEMOLITION OF MILLWORK, EQUIPMENT, MECHANICAL, ELECTRICAL &PLUMBING ITEMS, THE CONTRACTOR MUST NOTIFY THE ARCHITECT SO THAT THE OWNER IS GIVEN THE OPTION TO SALVAGE THESE ITEMS.

1. REMOVE EXISTING GRAB BARS & PLUMBING FIXTURES, REF. MEP
2. REMOVE EXISTING SINK, REF. MEP
3. REMOVE EXISTING GRILLS REF. MEP
4. FOR IMPROVEMENTS REF. MEP
5. REMOVE PORTION OF EXISTING METAL PANELS. (F.V.) PREPARE AREA TO RECEIVE SCREEN MESH TO MATCH EXISTING

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PALMER PAVILION RENOVATION

USA

Mc ALLEN, TEXAS

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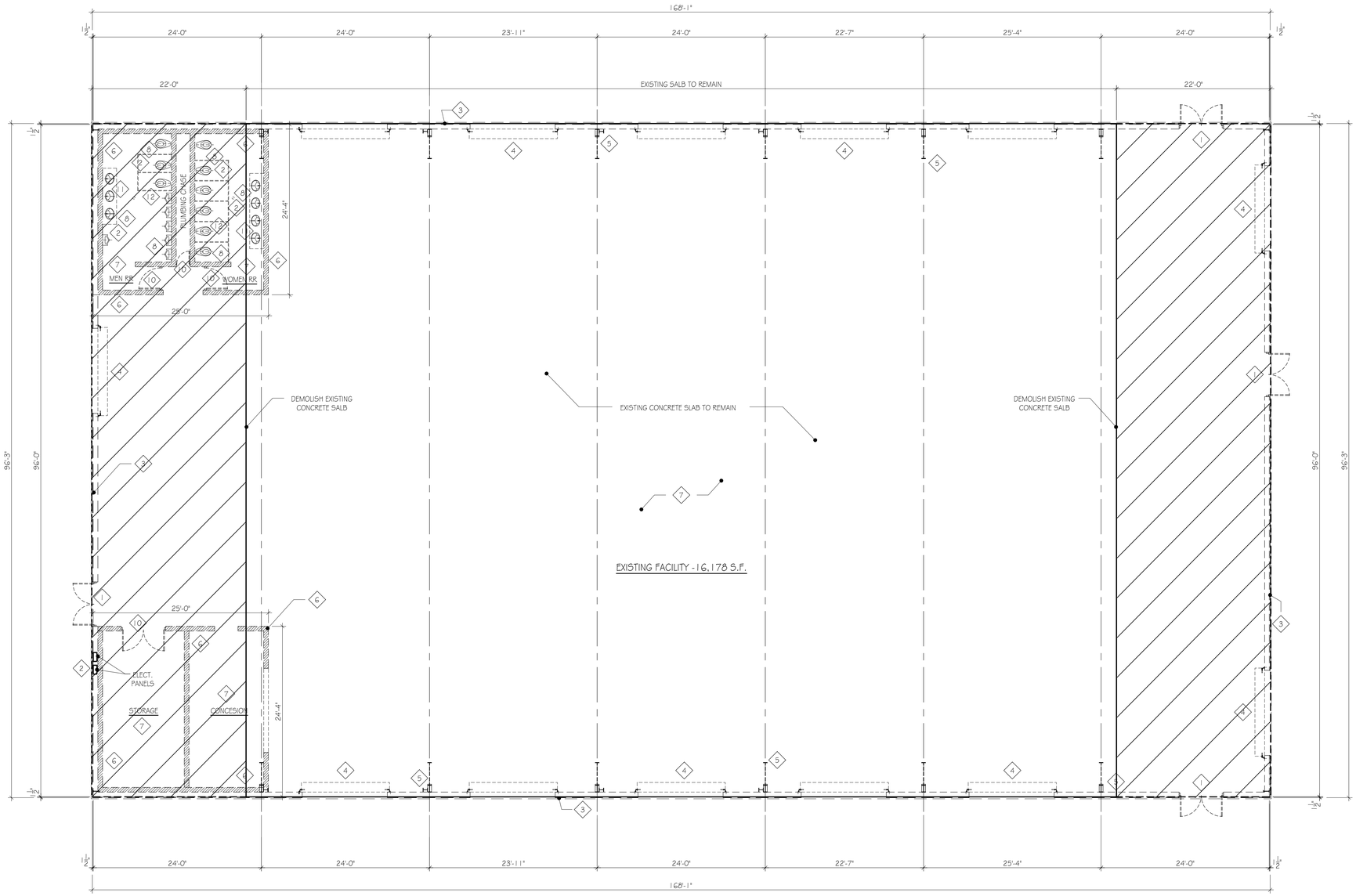
JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	FA
CHECKED BY:	SRG

EXISTING / DEMO KITCHEN FLOOR PLAN

AD1.01



GENERAL DEMOLITION NOTES

1. NO WORK IS TO COMMENCE UNTIL PLANS HAVE BEEN APPROVED BY THE CITY OF MCALLEN, TEXAS - AND A PERMIT FOR DEMOLITION HAS BEEN OBTAINED BY THE GENERAL CONTRACTOR.

2. THE CONTRACTOR SHALL REQUEST ALL INSPECTIONS REQUIRED BY LOCAL GOVERNMENTAL AGENCIES AND COORDINATE HIS WORK WITH SUCH.

3. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD AND NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES, WHERE ENCOUNTERED, MAKE ALL NECESSARY ARRANGEMENTS FOR SUPPORT, BRACING, SHORE-UP, REROUTE OR UTILITY DISCONNECTIONS AS REQUIRED BY APPLICABLE LOCAL OR PRIVATE UTILITY COMPANIES.

5. ALL DEMOLITION SHALL BE UNDERTAKEN W/ EXTREME CARE SO AS TO NOT DISTURB EXISTING STRUCTURAL ELEMENTS (COLUMNS, BEARING WALLS, ETC).

6. ALL DEMOLITION SHALL BE SCHEDULED SUCH THAT NO PORTION OF THE BUILDING IS EXPOSED TO THE WEATHER FOR AN UNNECESSARY PERIOD OF TIME OR DURING INCLEMENT WEATHER.

7. ALL DEBRIS SHALL BE REMOVED FROM THE SITE DAILY AND DISPOSED OF LEGALLY AT THE EXPENSE OF THE DEMOLITION CONTRACTOR.

8. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE W/ THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. EXAMINE ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

9. PROMPTLY PATCH AND REPAIR HOLES & DAMAGE SURFACES OF BUILDING CAUSED BY DEMOLITION. RESTORE EXPOSED FINISH OF PATCHED AREAS AND EXTEND FINISH RESTORATION INTO REMAINING ADJOINING CONSTRUCTION.

DEMOLITION KEY NOTES

EXTERIOR DEMOLITION:

1. REMOVE EXISTING DOOR AND FRAME.
2. FOR FURTHER ELECTRICAL, MECHANICAL & PLUMBING RENOVATION INFO, REF. MEP DWGS
3. REMOVE EXISTING PRE-FINISHED METAL SIDING OVER STRUCTURAL WALL GIRTS, TYP.
4. REMOVE EXISTING OVERHEAD COILING DOORS, TYP.
5. REMOVE EXISTING STRUCTURE INCLUDING STEEL RIGID FRAME COLUMNS & PORTAL FRAMES, TYP.

INTERIOR DEMOLITION:

6. REMOVE EXISTING CMU WALL, INCLUDING GYP. BD., FRAMING, ELECTRICAL CONDUIT, OUTLETS, DOORS, FRAMES, WINDOWS, BASE TRIM, ETC.
7. REMOVE ANY EXISTING GYP. BOARD OR ACOUSTICAL CEILING TILES, A/C GRILLS, SPEAKERS, LAMPS, BALLASTS AND SECURITY DOMES.
8. REMOVE EXISTING PLUMBING FIXTURE, TYP.
9. REMOVE MISC. DATA CABLE, PHONE LINES, AND SIMILAR ACCESSORIES, RE: MEP
10. REMOVE EXISTING DOOR, HINGES, AND HARDWARE.
11. REMOVE EXISTING MILLWORK.
12. REMOVE TOILET PARTITION AND DOOR.
13. REMOVE EXISTING PORTAL FRAME

LEGEND

PRIOR TO THE DEMOLITION OF MILLWORK, EQUIPMENT, MECHANICAL, ELECTRICAL &PLUMBING ITEMS, THE CONTRACTOR MUST NOTIFY THE ARCHITECT SO THAT THE OWNER IS GIVEN THE OPTION TO SALVAGE THESE ITEMS.

REMOVE EXISTING DOOR & FRAME

DEMOLISH EXISTING EXTERIOR & INTERIOR WALL

NOT IN CONTRACT

N

EXISTING / DEMO GYMNASIUM FLOOR PLAN

1/8" = 1'-0"

1

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PALMER PAVILION RENOVATION

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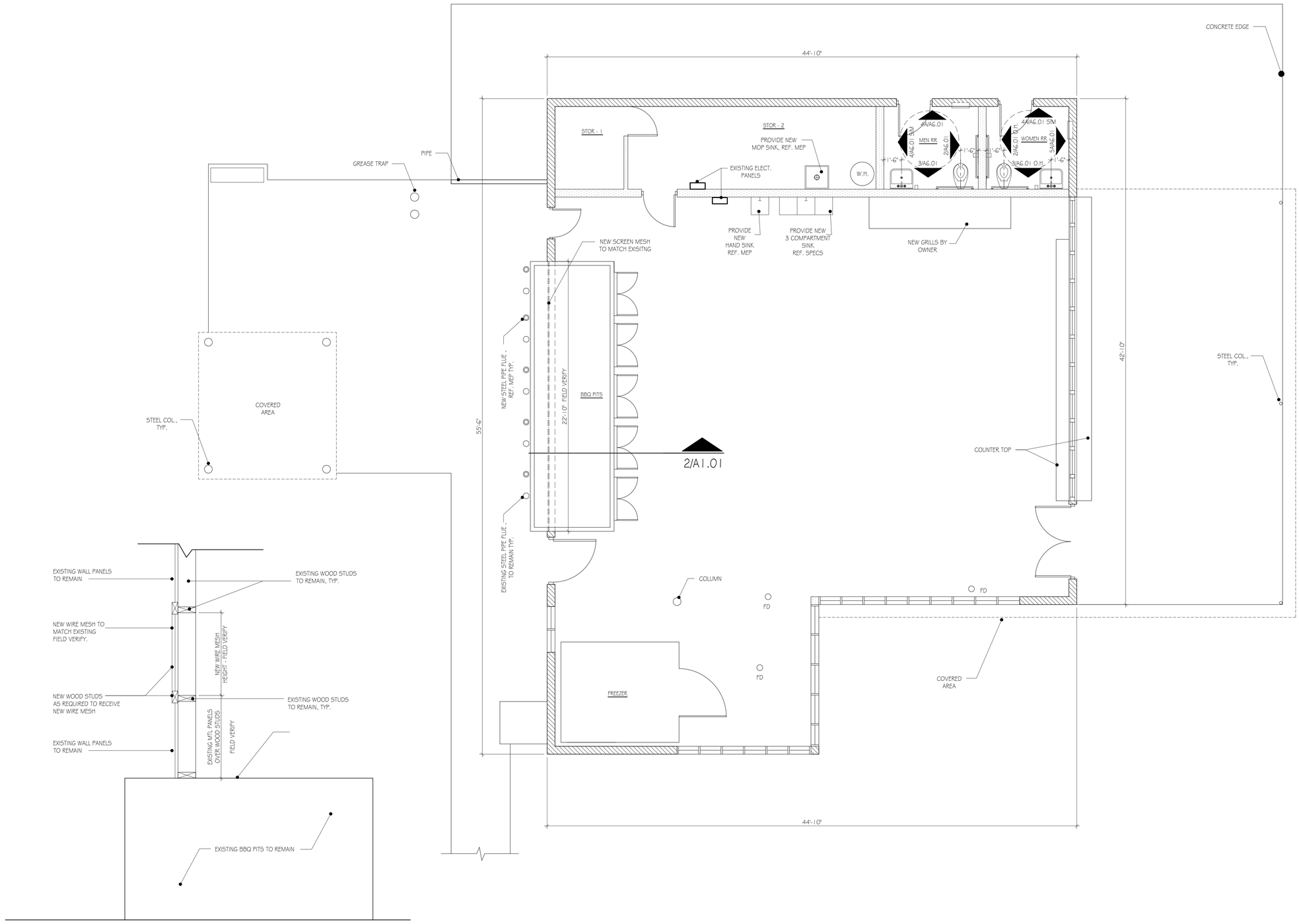
EXISTING / DEMO FLOOR PLAN

AD1.02



NEW WIRE MESH DETAIL **2**

NTS

N

NEW KITCHEN FLOOR PLAN **1**

1/4" = 1'-0"

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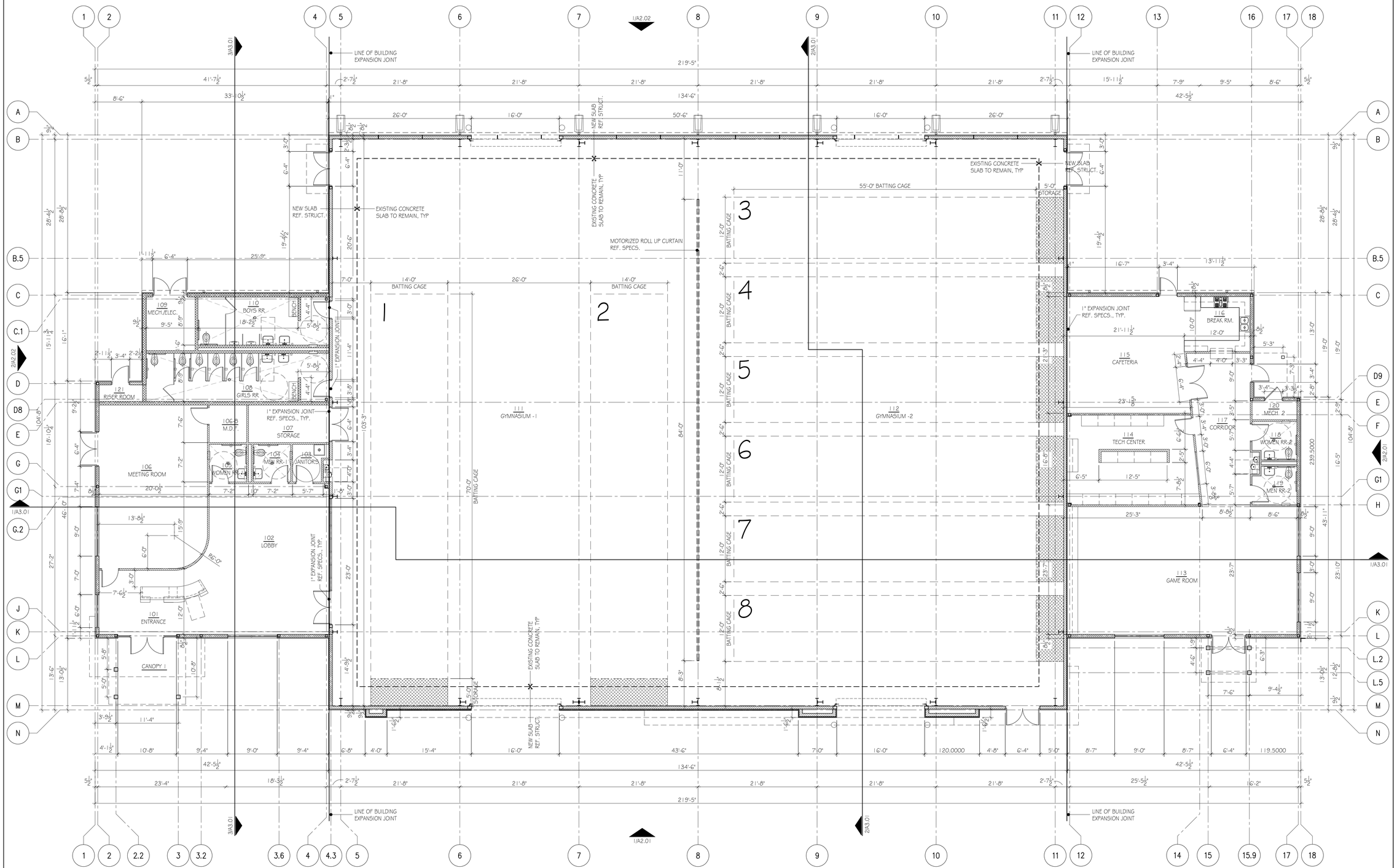
NEW KITCHEN FLOOR PLAN

A1.01



N

NEW GYMNASIUM FLOOR PLAN - DIMENSIONED

1/8" = 1'-0"

1

LEGEND

- NEW DOOR, FRAME & HARDWARE
- CMU BLCOK
- METAL STUDS
- WALL PANELS
- E.I.F.S.

FOOTAGE

SENIOR AREA:	2,510 SQ.FT.
TRAINING AREA:	14,060 SQ.FT.
TRAINING SUPPORT AREA:	2,535 SQ.FT.
TOTAL SLAB AREA:	19,105 SQ.FT.
COVERED PATIO:	48 SQ.FT.

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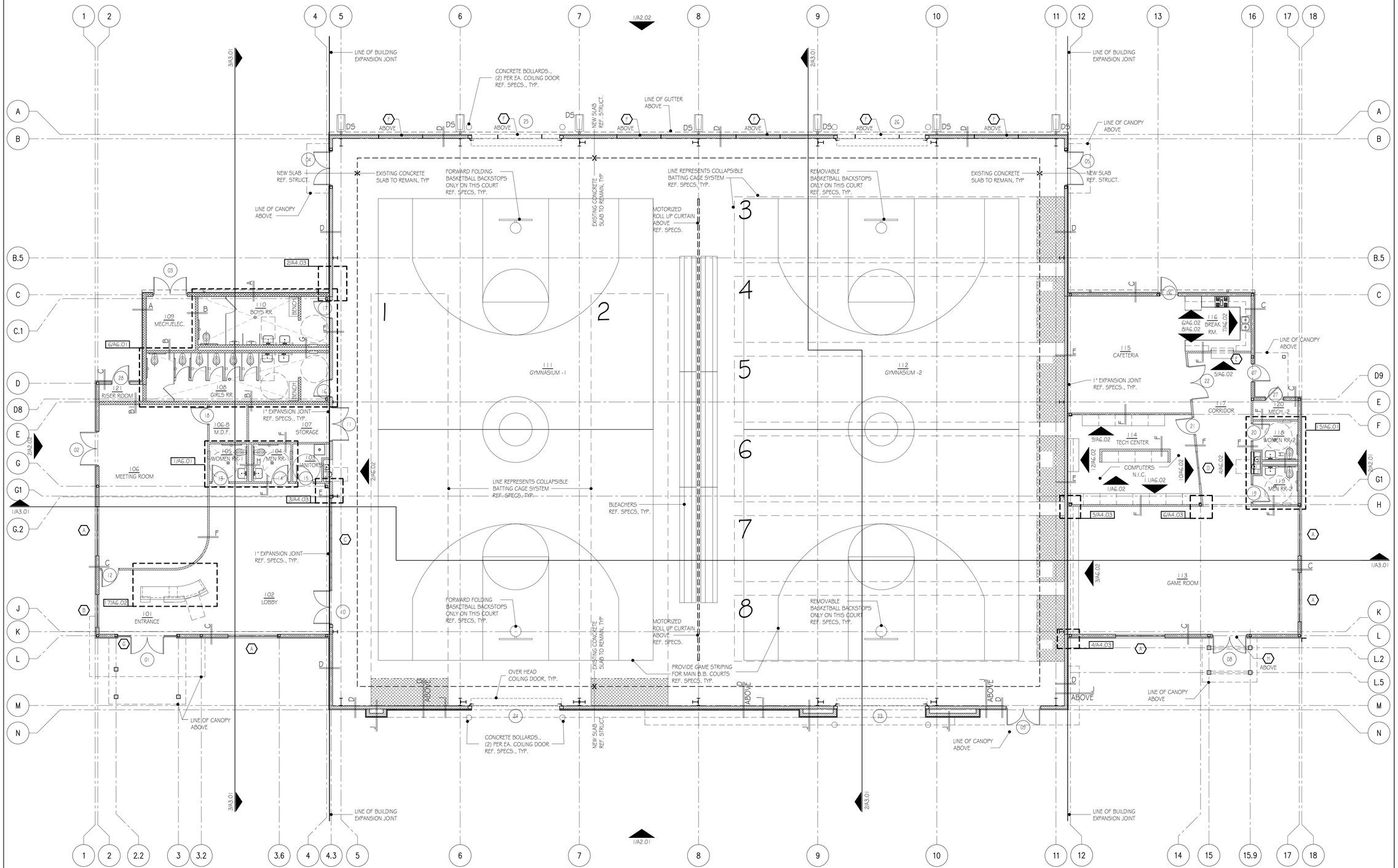
NEW FLOOR PLAN DIMENSIONED

A1.02



N

NEW GYMNASIUM FLOOR PLAN - ANNOTATED

1/8" = 1'-0"

1

LEGEND

- NEW DOOR, FRAME & HARDWARE
- CMU BLCOK
- METAL STUDS
- WALL PANELS
- E.I.F.S.

FOOTAGE

SENIOR AREA:	2,510 SQ.FT.
TRAINING AREA:	14,060 SQ.FT.
TRAINING SUPPORT: AREA	2,535 SQ.FT.
TOTAL SLAB AREA:	19,105 SQ.FT.
COVERED PATIO:	48 SQ.FT.

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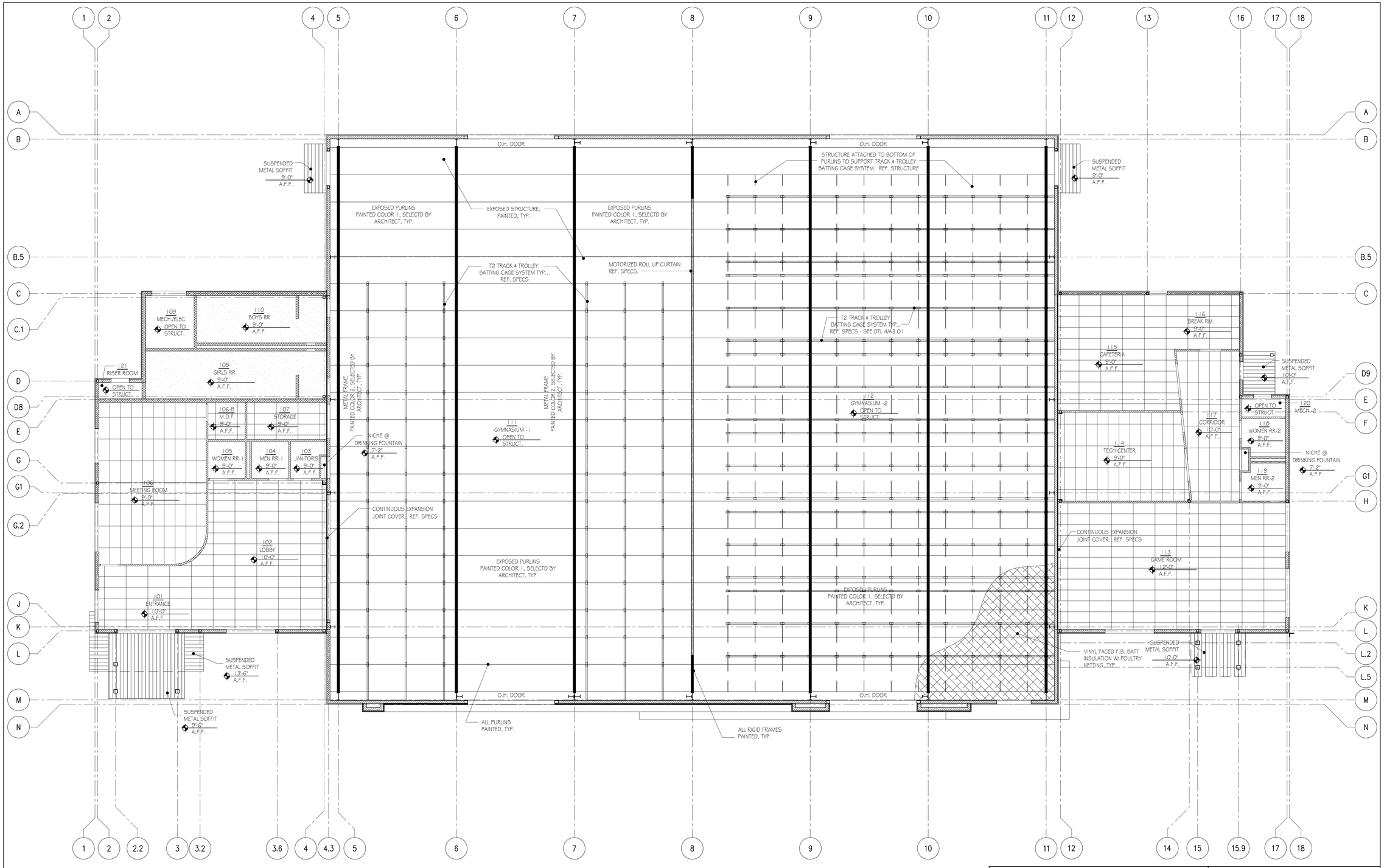
NEW FLOOR PLAN ANNOTATED

A1.03



CEILING NOTES

1. SUSPENDED ACOUSTICAL CEILING TILE SHALL BE CLASS 'A' WHITE, ARMSTRONG CORTEGA, 5/8" THICK, 24"x 48" ANGLED TEGULAR, WITH 9/16" SUPRAFINE EXPOSED TEE CEILING GRID, TYPICAL. (OR APPROVED EQUAL)
2. RE: ELECTRICAL DRAWINGS FOR LIGHT FIXTURES, TYP.
3. CEILING PLANE SHALL BE LEVEL AND TRUE AND IN ALIGNMENT WITH ALL LIGHTING, SPRINKLER, HVAC, AND OTHER ELEMENTS INCORPORATED THEREIN.
4. MECHANICAL, HVAC, AND PLUMBING ELEMENTS SHALL AT NO TIME COME IN CONTACT WITH CEILING CONSTRUCTION EXCEPT AS NECESSARY PENETRATIONS MAY REQUIRE.

LEGEND

- 2 X 4 NEW CEILING GRID & TILE - REF. SPECS
- 5/8" WATER RESISTANT GYP. BRD. SUSPENDED, TAPED, FLOATED, AND PAINTED AT ALL WET AREAS
- EXPOSED STRUCTURE, PAINTED
- SUSPENDED METAL SOFFIT
- LIGHT FIXTURE, REF. MEP DWGS

N

REFLECTED CEILING PLAN

1/8" = 1'-0"

1

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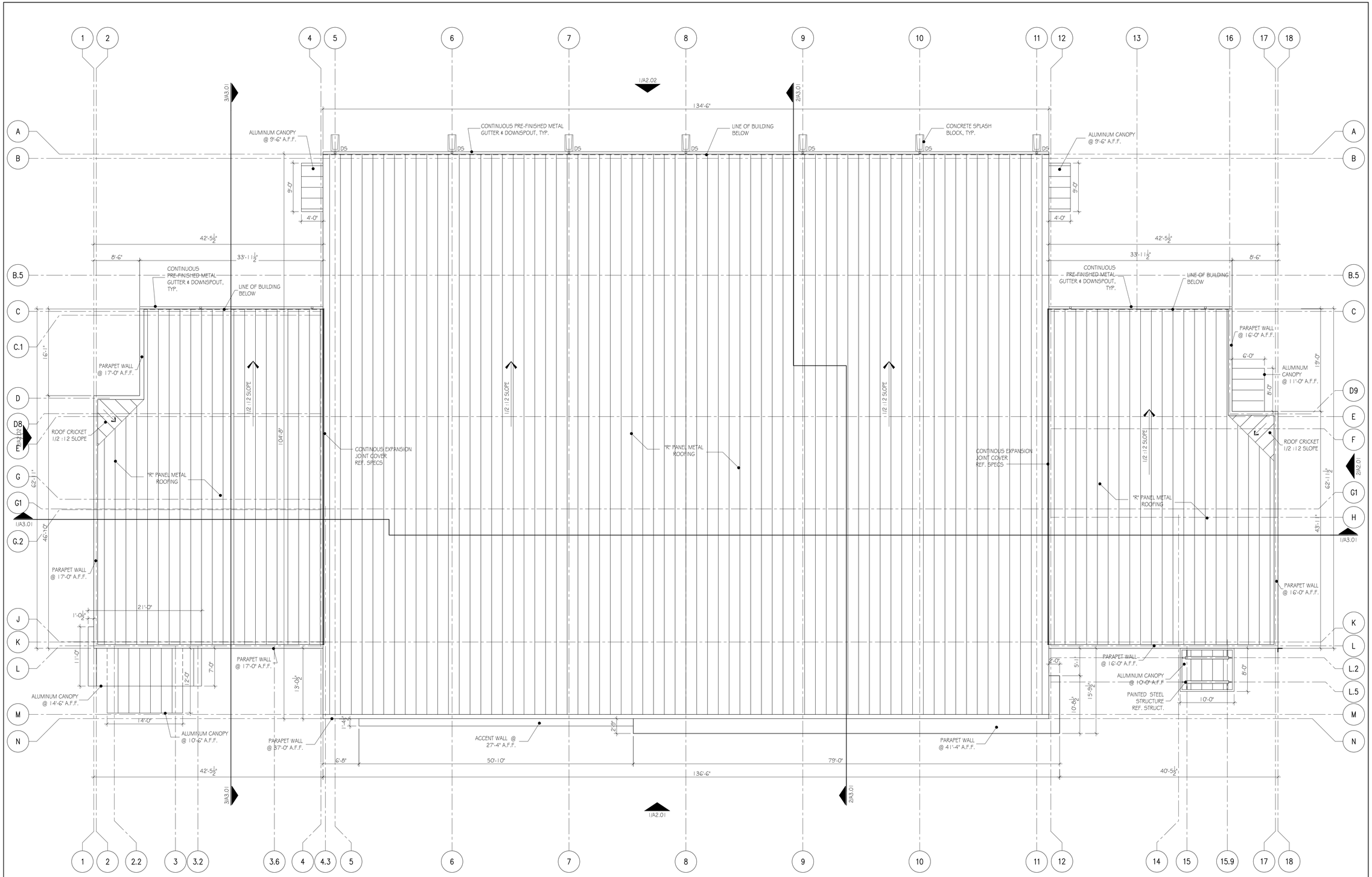
REFLECTED CEILING PLAN

A1.04



N

ROOF PLAN 1

1/8" = 1'-0"

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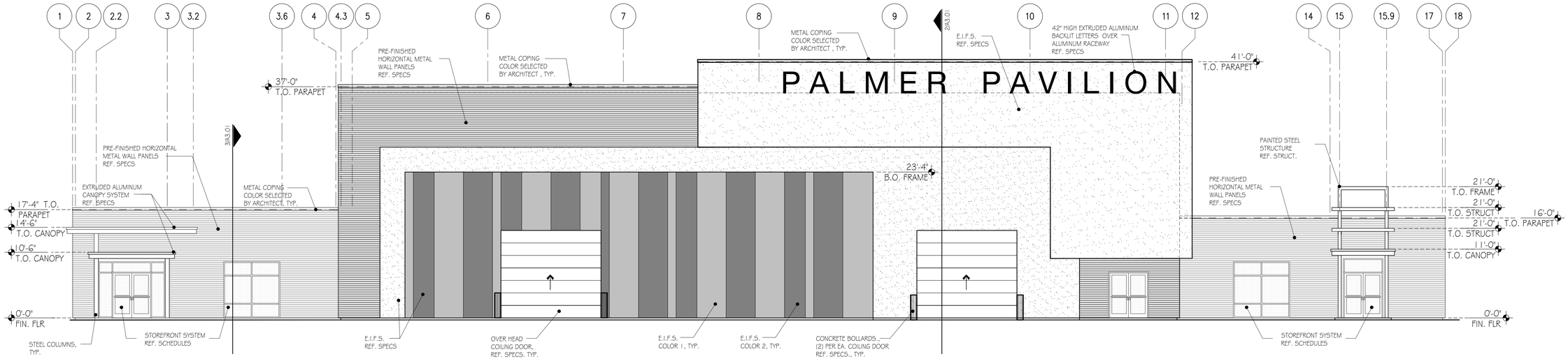
ROOF PLAN

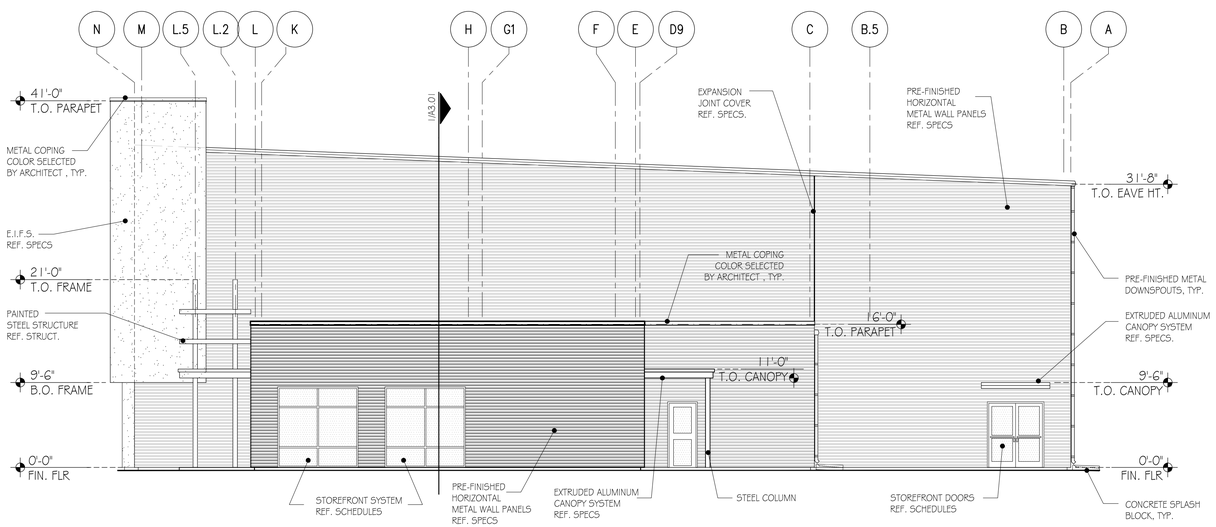
A1.05



SOUTH ELEVATION

1/8" = 1'-0"

1



EAST ELEVATION

1/8" = 1'-0"

2

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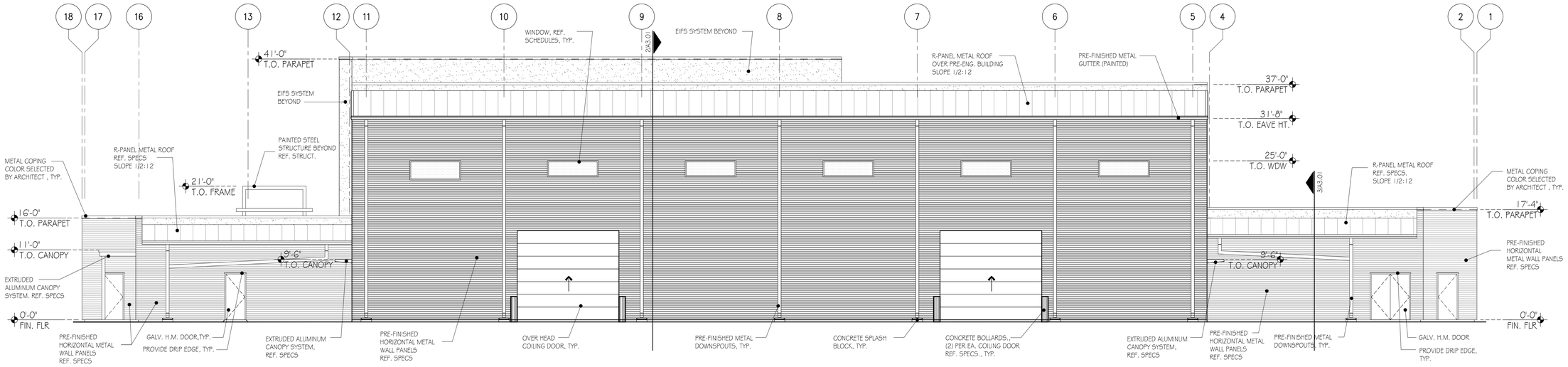
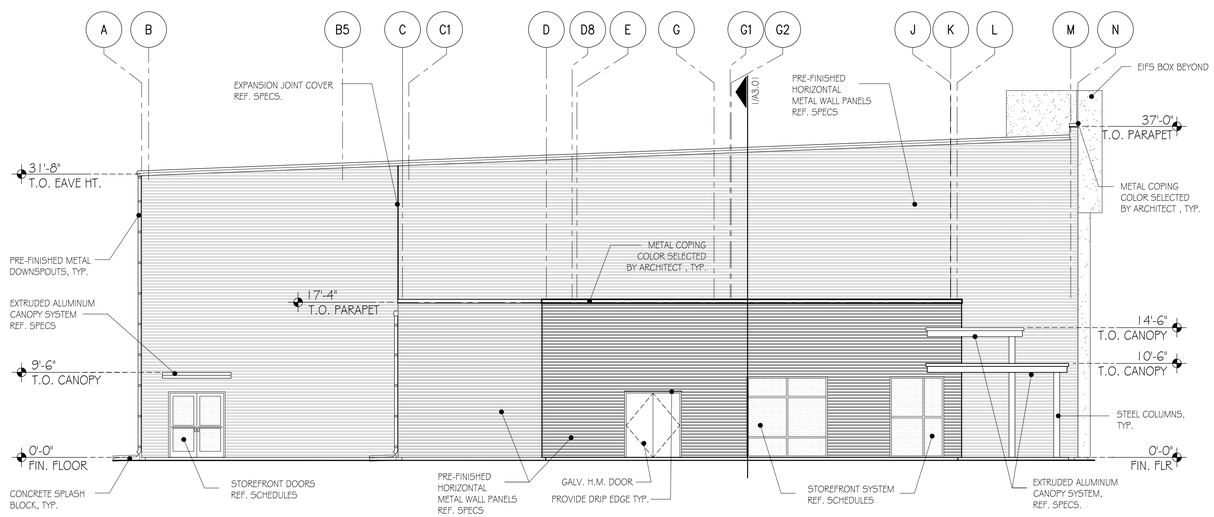
EXTERIOR ELEVATIONS

A2.01



NORTH ELEVATION **1**

1/8" = 1'-0"



WEST ELEVATION **2**

1/8" = 1'-0"

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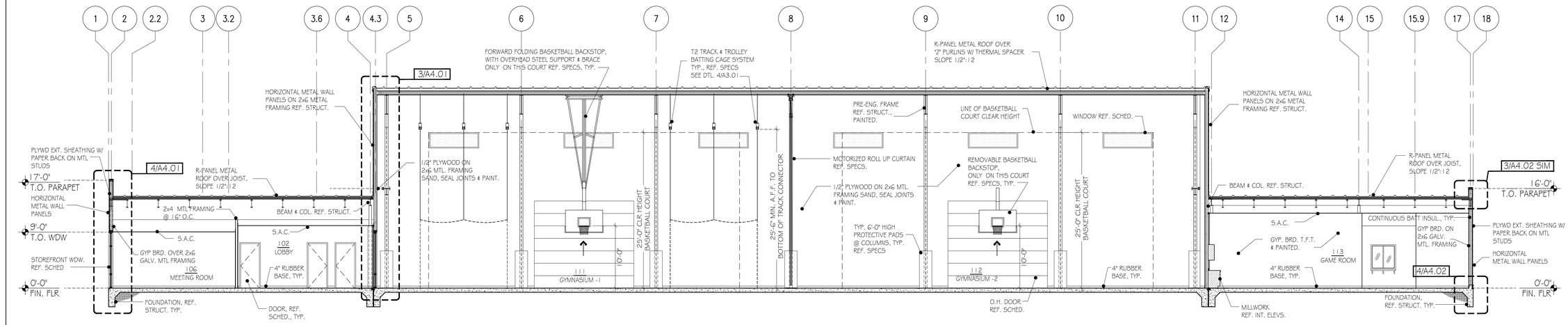
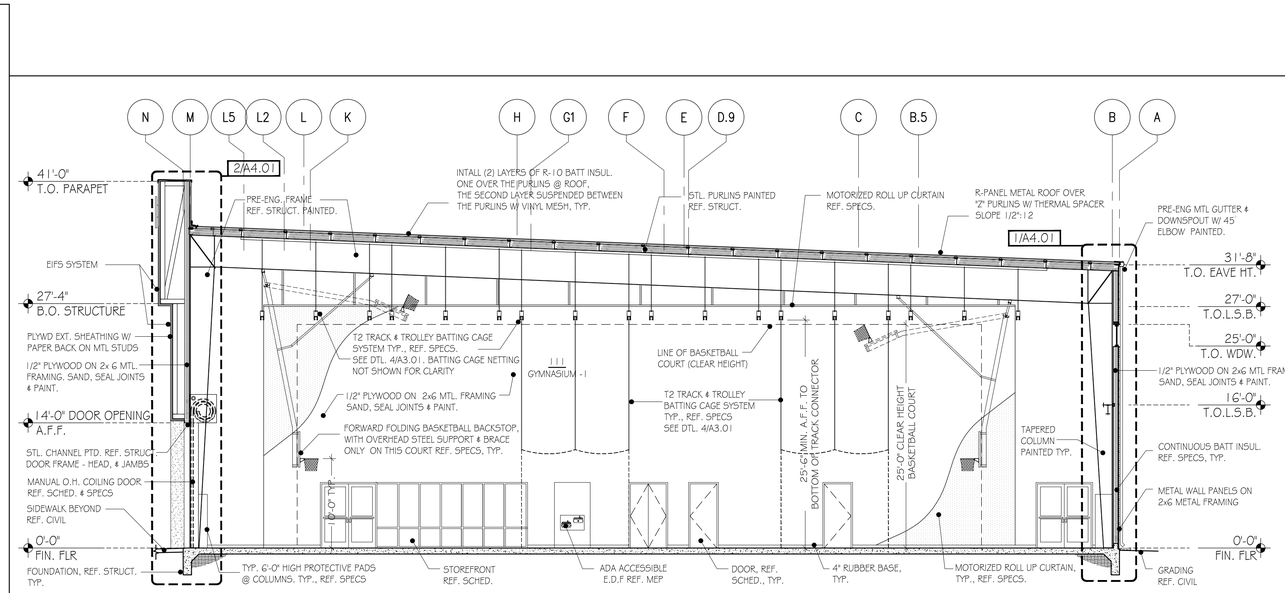
EXTERIOR ELEVATIONS

A2.02



BUILDING SECTION 1

1/8" = 1'-0"



BUILDING SECTION 2

1/8" = 1'-0"

BATTING CAGE SYSTEM DETAIL 4

1/2" = 1'-0"

BUILDING SECTION 3

1/8" = 1'-0"

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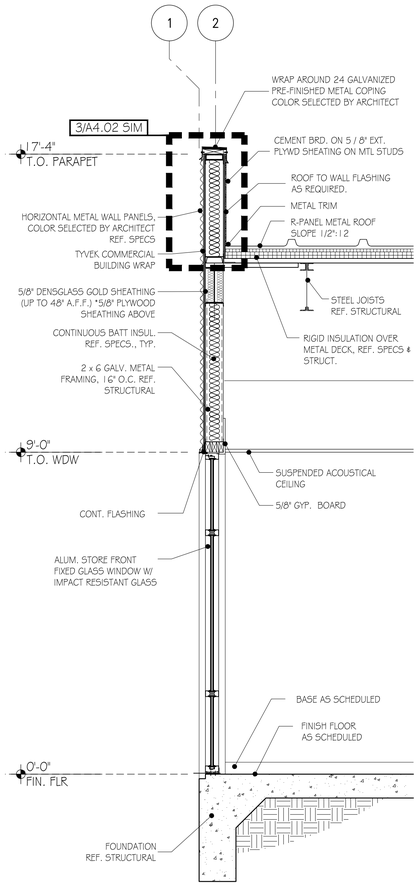
BUILDING SECTIONS

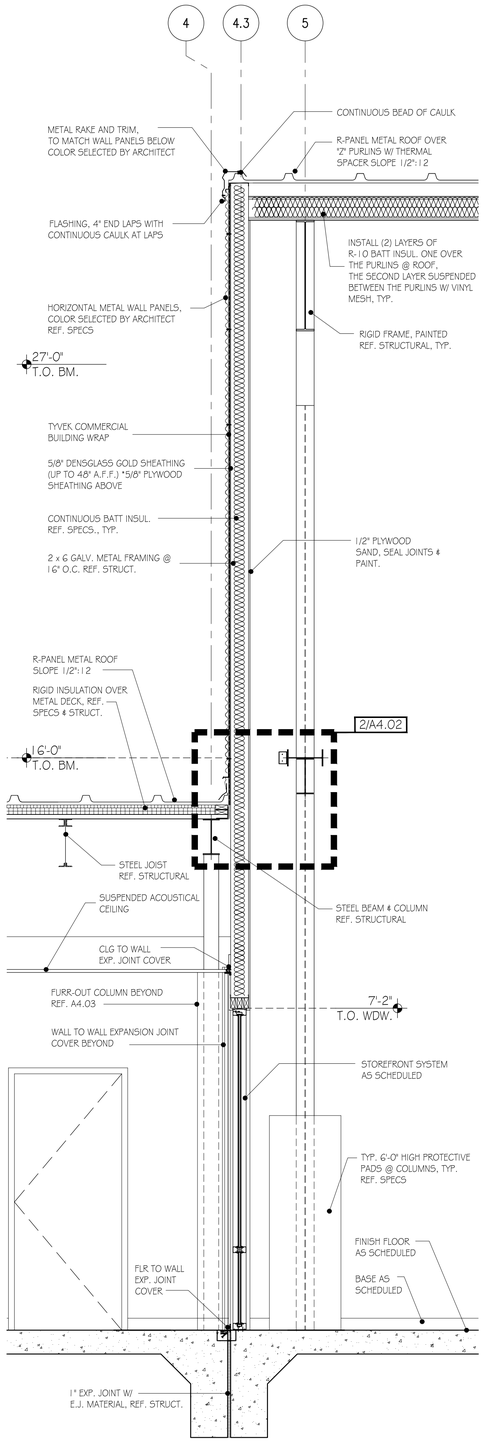
A3.01



WALL SECTION

1/2" = 1'-0"

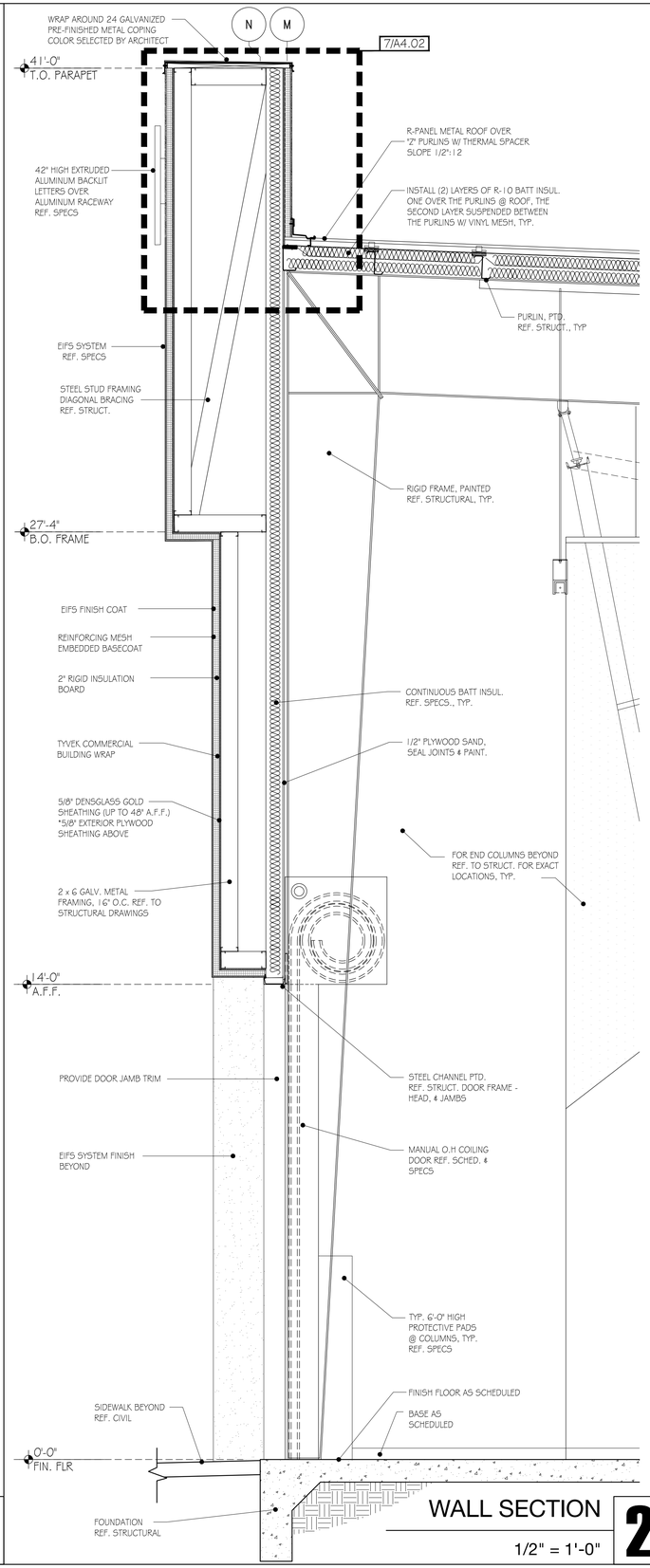
4



WALL SECTION

1/2" = 1'-0"

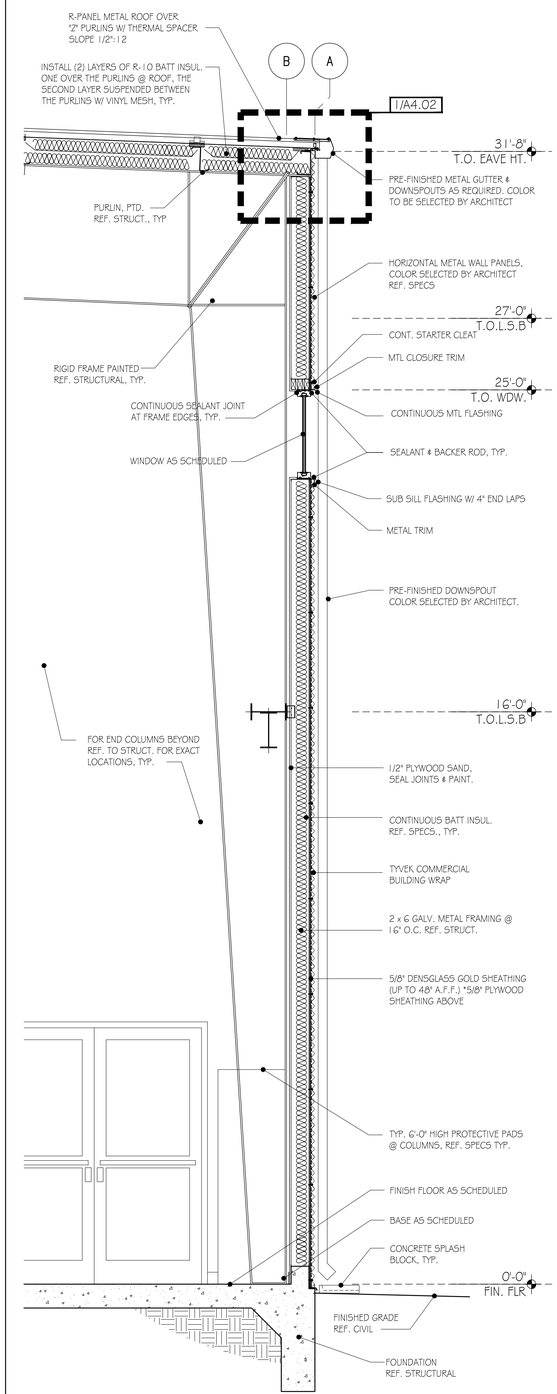
3



WALL SECTION

1/2" = 1'-0"

2



WALL SECTION

1/2" = 1'-0"

1

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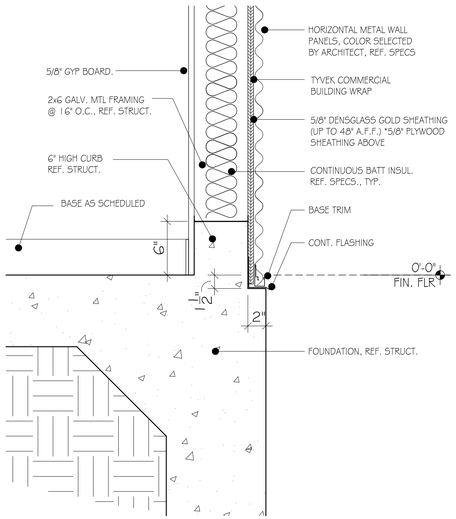
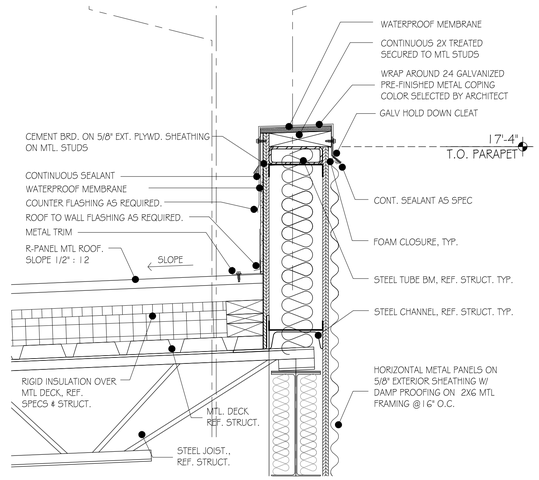
WALL SECTIONS

A4.01



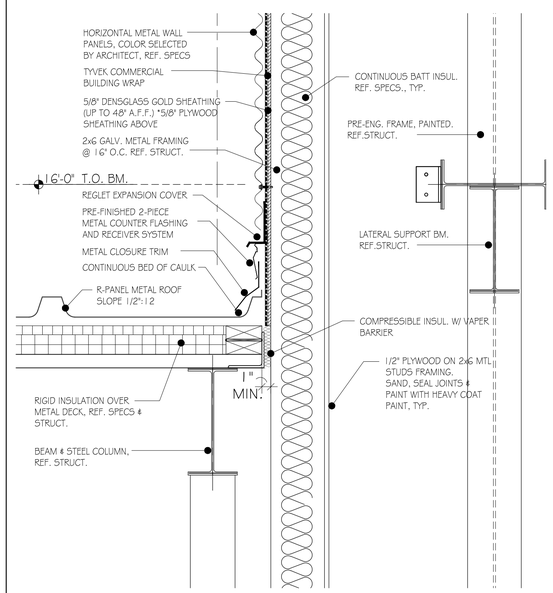
LEDGE DETAIL 4

1 1/2" = 1'-0"



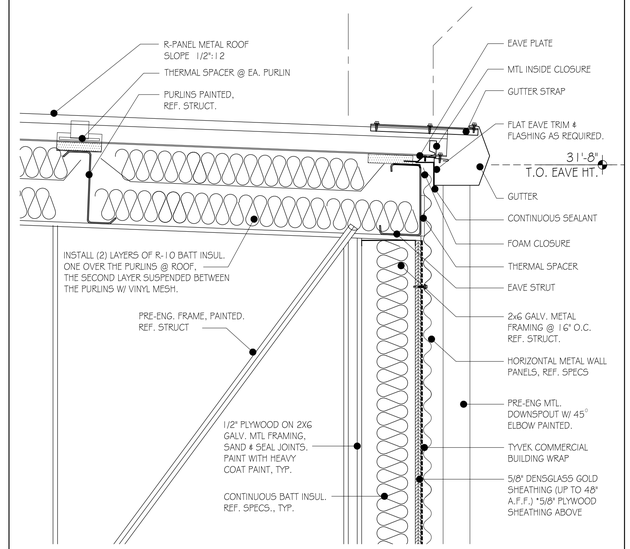
PARAPET DETAIL 3

1 1/2" = 1'-0"



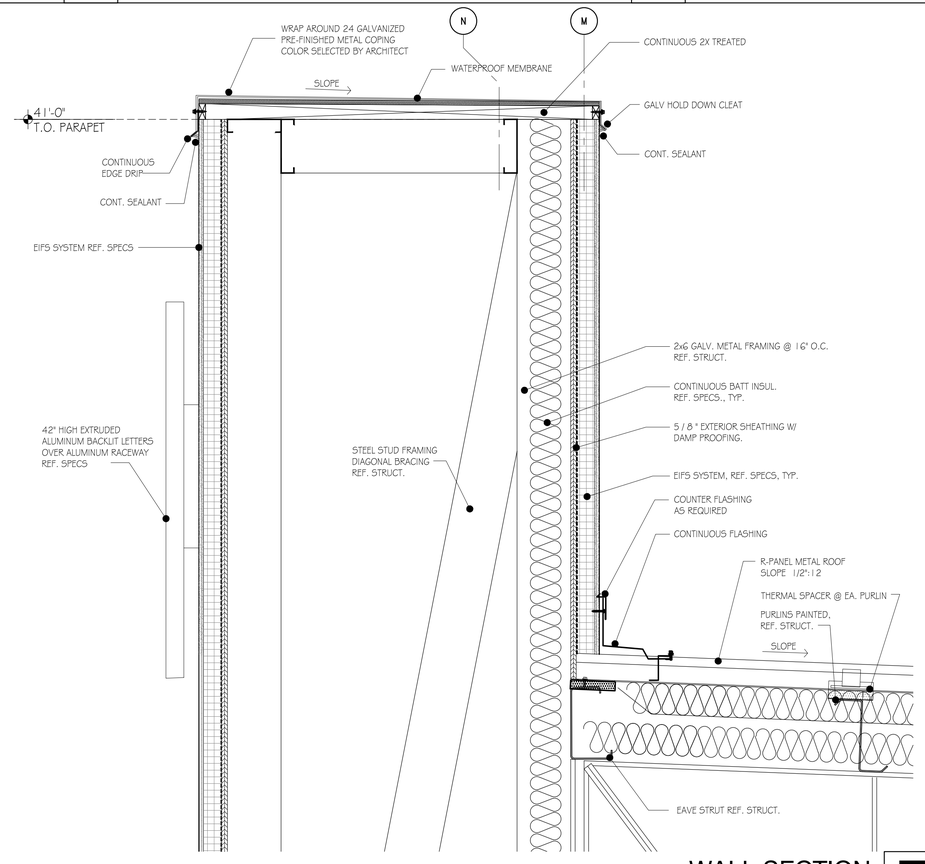
SECTION DETAIL 2

1 1/2" = 1'-0"



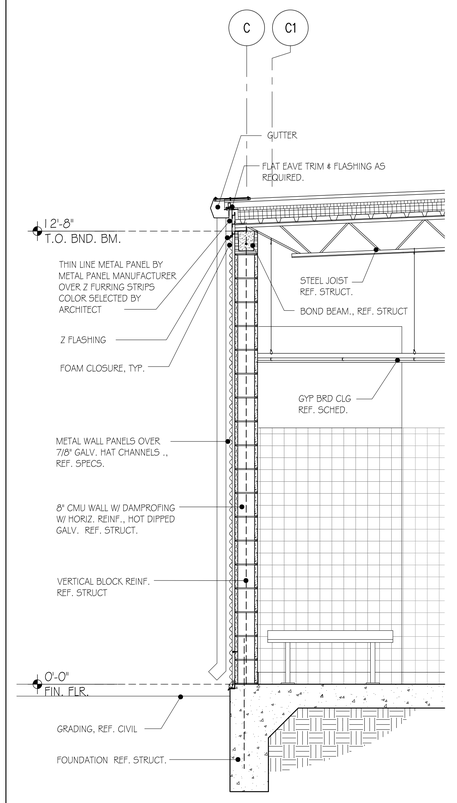
SECTION DETAIL 1

1 1/2" = 1'-0"



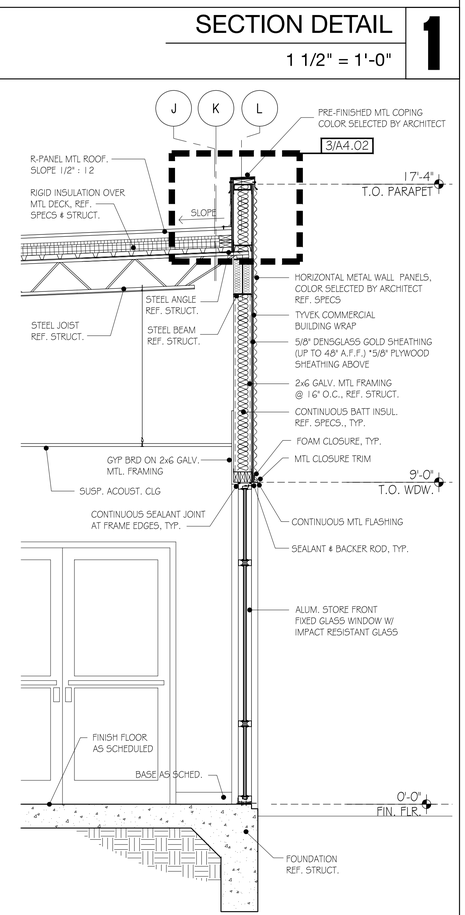
WALL SECTION 7

1 1/2" = 1'-0"



WALL SECTION 6

1/2" = 1'-0"



WALL SECTION 5

1/2" = 1'-0"

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REGISTERED ARCHITECT
SAMUEL RAYMOND GARCIA JR.
21333
STATE OF TEXAS

SEPTEMBER 12, 2016

PALMER PAVILION RENOVATION

USA

Mc ALLEN, TEXAS

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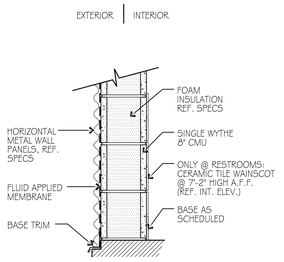
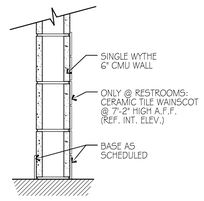
JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	FA
CHECKED BY:	SRG

WALL SECTIONS

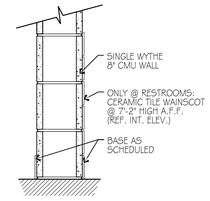
A4.02



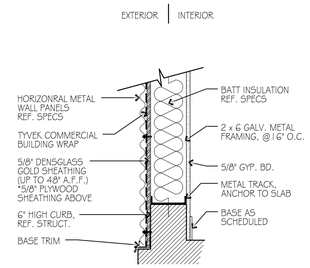
WALL TYPE "A"
EXTERIOR WALL



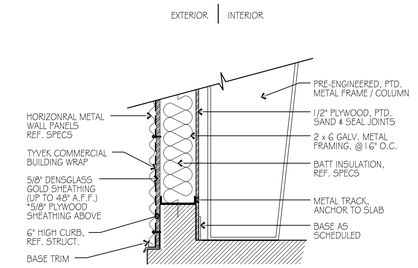
WALL TYPE "B"
INTERIOR PARTITION



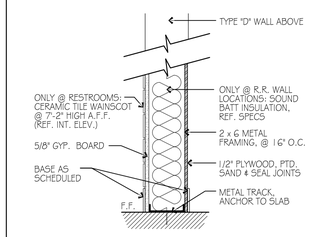
WALL TYPE "B I"
INTERIOR PARTITION



WALL TYPE "C"
EXTERIOR WALL



WALL TYPE "D"
EXTERIOR WALL



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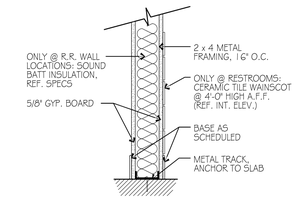
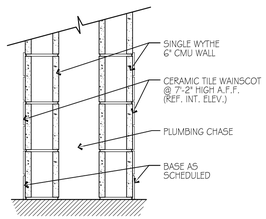
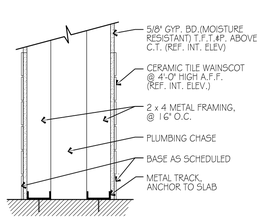
INTERIOR PARTITION



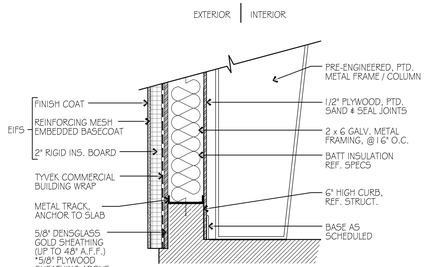
WALL TYPE "F"
INTERIOR PARTITION



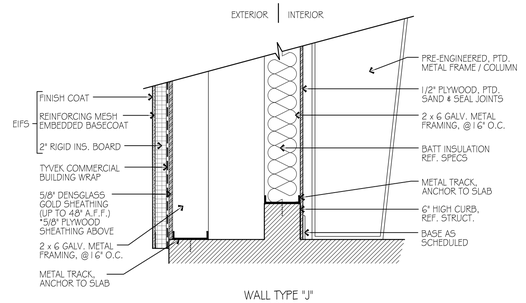
WALL TYPE "G"
PLUMBING INTERIOR PARTITION



WALL TYPE "H"
PLUMBING INTERIOR PARTITION

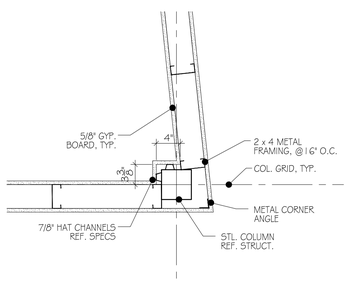


WALL TYPE "I"
EXTERIOR WALL

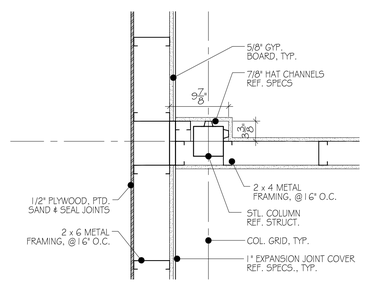


WALL TYPE "J"
EXTERIOR WALL

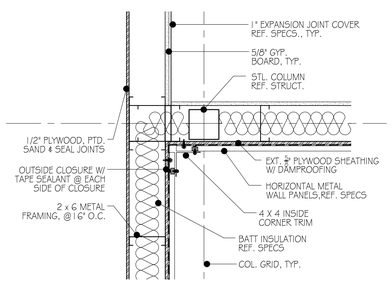
WALL TYPES
1" = 1'-0"
1



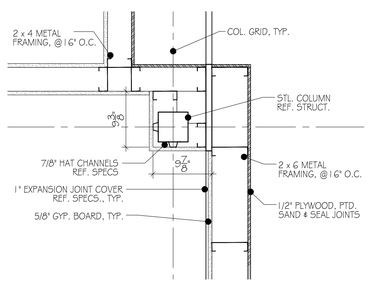
FLOOR PLAN DETAIL
1" = 1'-0"
6



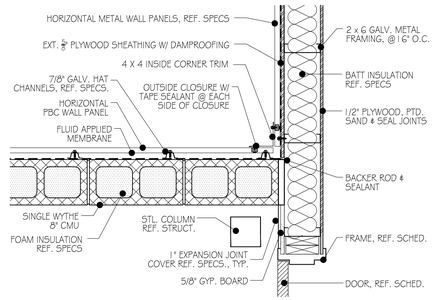
FLOOR PLAN DETAIL
1" = 1'-0"
5



FLOOR PLAN DETAIL
1" = 1'-0"
4



FLOOR PLAN DETAIL
1" = 1'-0"
3



FLOOR PLAN DETAIL
1" = 1'-0"
2

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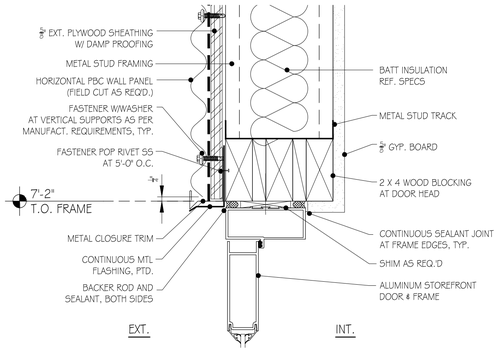
JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	AG
CHECKED BY:	SRG

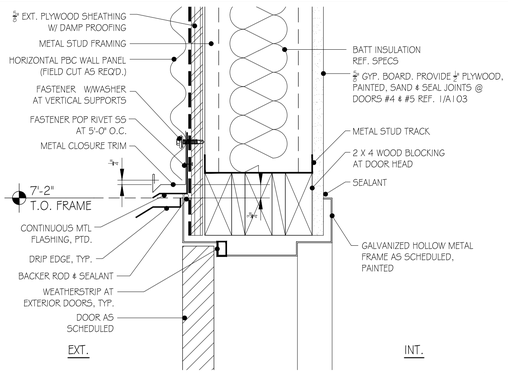
WALL TYPES & FLOOR PLAN DETAILS

A4.03



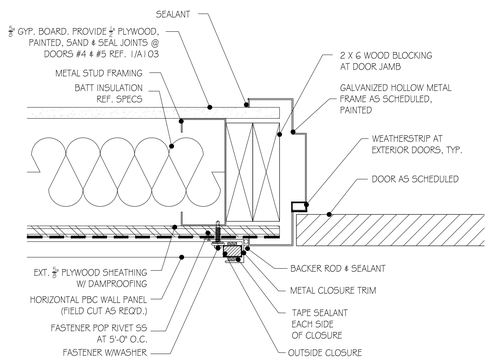
EXTERIOR STOREFRONT DOOR HEAD @ METAL STUDS **10**

3" = 1'-0"



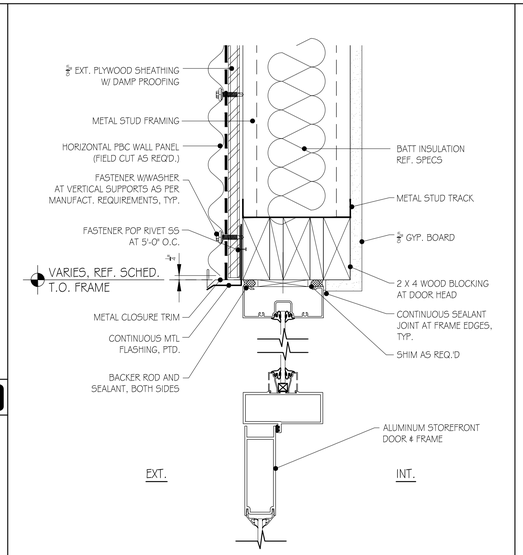
EXTERIOR GALV. H.M. DOOR HEAD @ METAL STUDS **11**

3" = 1'-0"



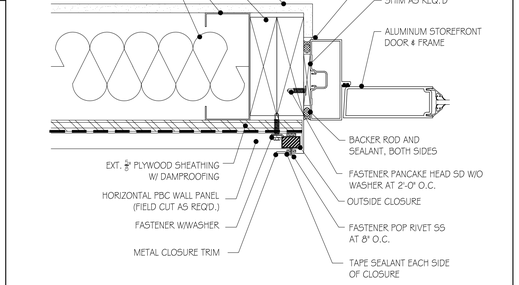
EXTERIOR GALV. H.M. DOOR JAMB @ METAL STUDS **12**

3" = 1'-0"



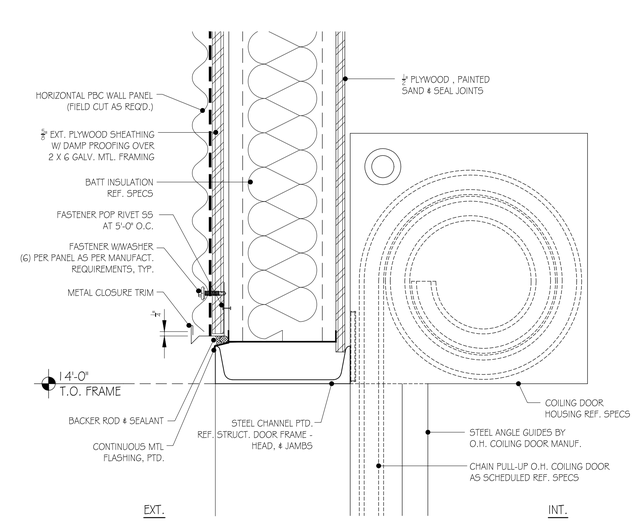
EXTERIOR STOREFRONT DOOR HEAD W/TRANSOM @ METAL STUDS **7**

3" = 1'-0"



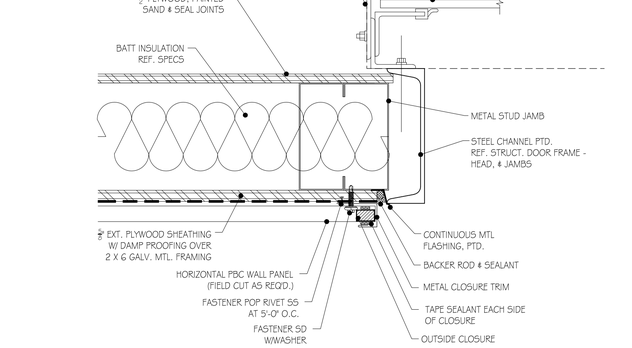
EXTERIOR STOREFRONT DOOR JAMB @ METAL STUDS **8**

3" = 1'-0"



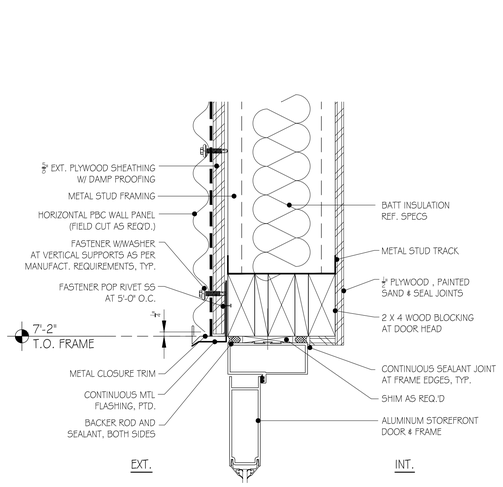
OH COILING DOOR HEAD @ METAL STUDS W/ METAL PANELS **4**

3" = 1'-0"



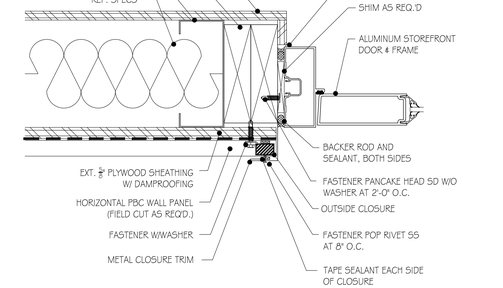
OH COILING DOOR JAMB @ METAL STUIDS W/ METAL PANELS **5**

3" = 1'-0"



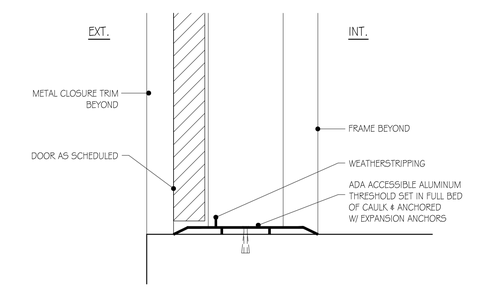
EXTERIOR STOREFRONT DOOR HEAD @ METAL STUDS **1**

3" = 1'-0"



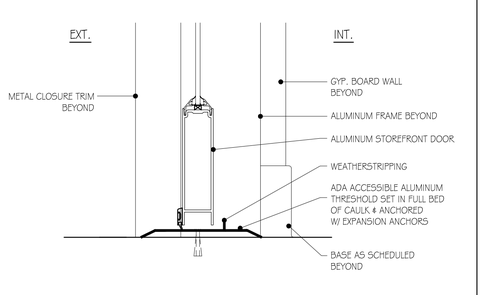
EXTERIOR STOREFRONT DOOR JAMB @ METAL STUDS **2**

3" = 1'-0"



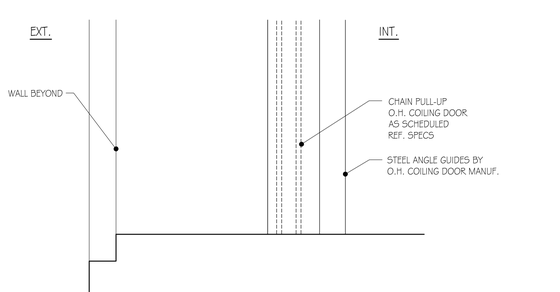
EXTERIOR GALV. H.M. DOOR SILL @ METAL STUDS **13**

3" = 1'-0"



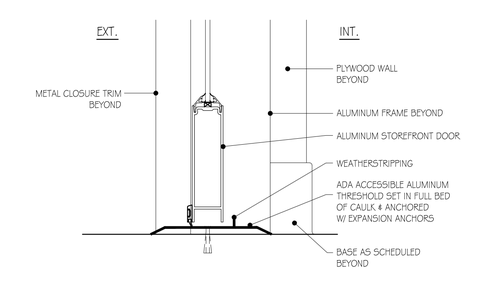
EXTERIOR STOREFRONT DOOR SILL @ METAL STUDS **9**

3" = 1'-0"



OH COILING DOOR SILL @ METAL STUDS W/ METAL PANELS **6**

3" = 1'-0"



EXTERIOR STOREFRONT DOOR SILL @ METAL STUDS **3**

3" = 1'-0"

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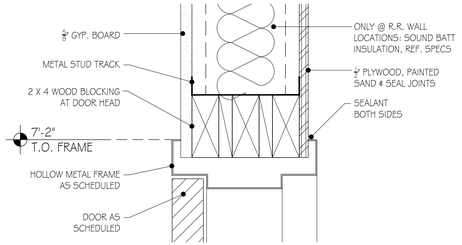
JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	AG
CHECKED BY:	SRG

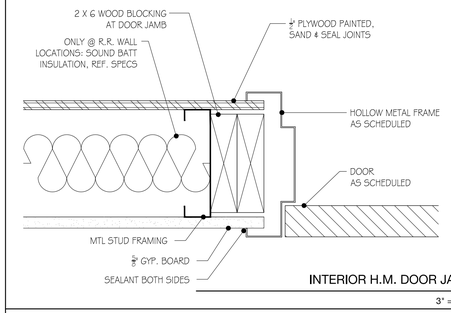
DOOR & WINDOW DETAILS

A5.01



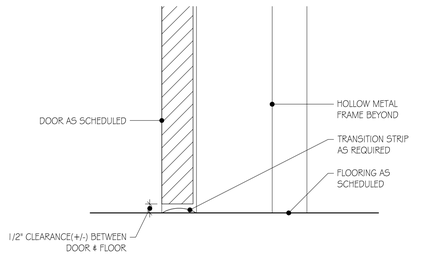
INTERIOR H.M. DOOR HEAD **9**

3" = 1'-0"



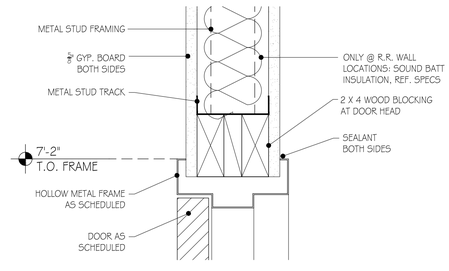
INTERIOR H.M. DOOR JAMB **10**

3" = 1'-0"



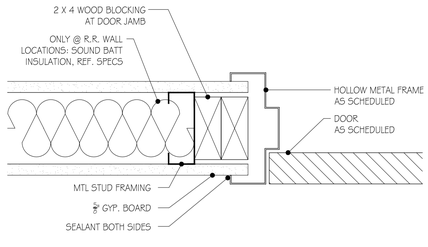
INTERIOR H.M. DOOR SILL **11**

3" = 1'-0"



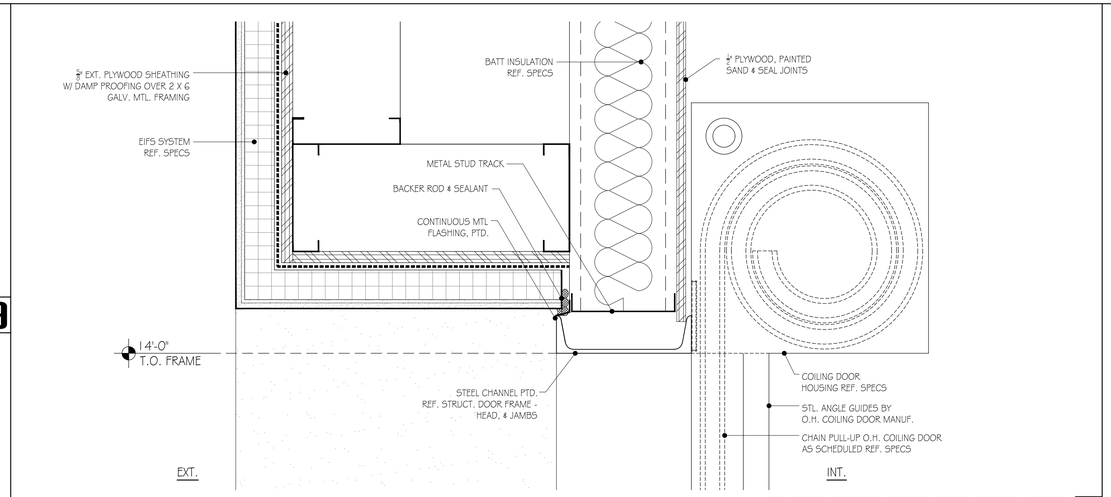
INTERIOR H.M. DOOR HEAD **12**

3" = 1'-0"



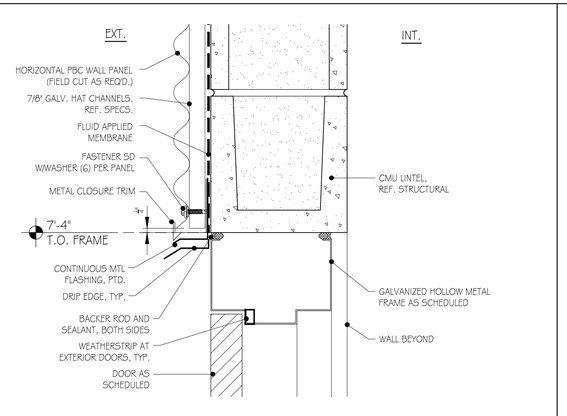
INTERIOR H.M. DOOR JAMB **13**

3" = 1'-0"



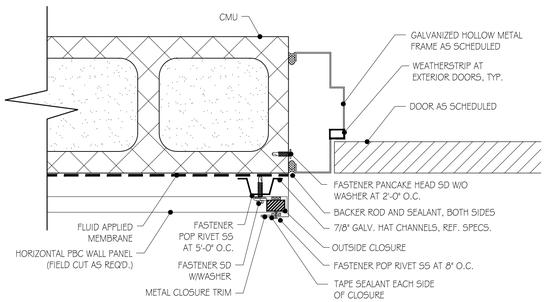
OH COILING DOOR HEAD @ METAL STUDS W/ EIFS **4**

3" = 1'-0"



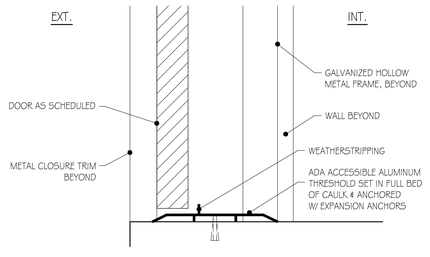
EXTERIOR GALV. H.M. DOOR HEAD @ CMU WALL **6**

3" = 1'-0"



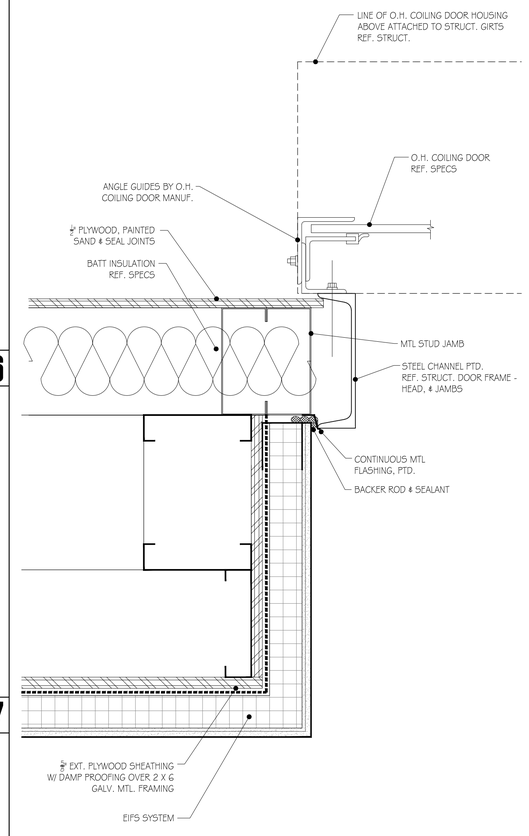
EXTERIOR GALV. H.M. DOOR JAMB @ CMU WALL **7**

3" = 1'-0"



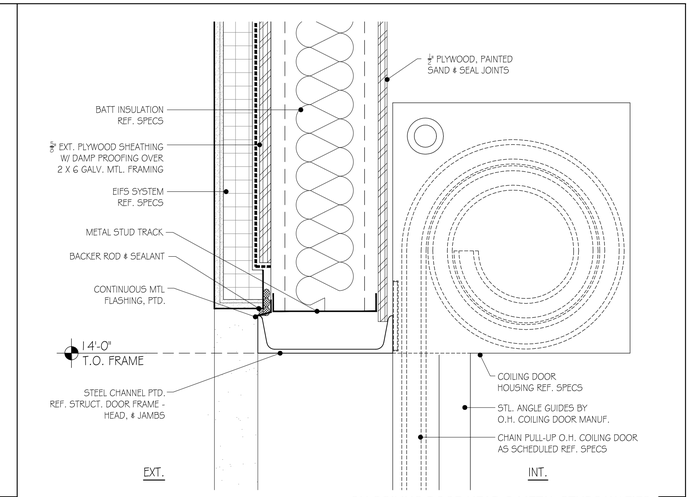
EXTERIOR GALV. H.M. DOOR SILL @ CMU WALL **8**

3" = 1'-0"



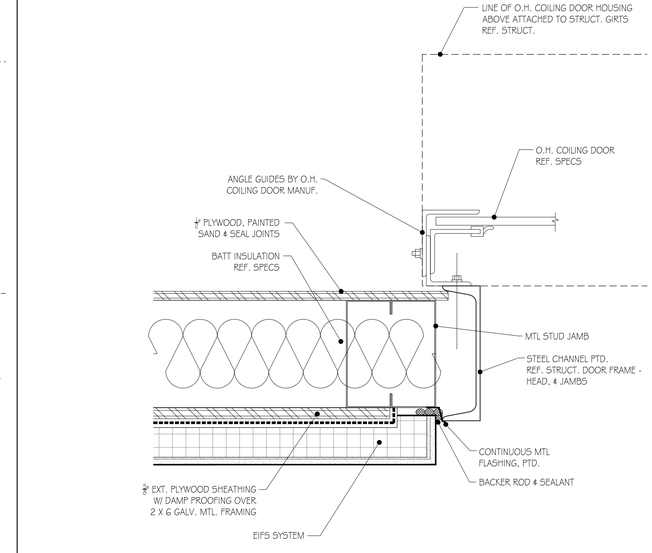
OH COILING DOOR JAMB @ METAL STUDS W/ EIFS **5**

3" = 1'-0"



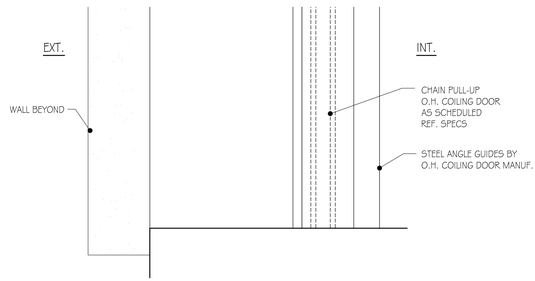
OH COILING DOOR HEAD @ METAL STUDS W/ EIFS **1**

3" = 1'-0"



OH COILING DOOR JAMB @ METAL STUDS W/ EIFS **2**

3" = 1'-0"



OH COILING DOOR SILL @ METAL STUDS W/ EIFS **3**

3" = 1'-0"

REGISTERED ARCHITECT
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Mc ALLEN, TEXAS

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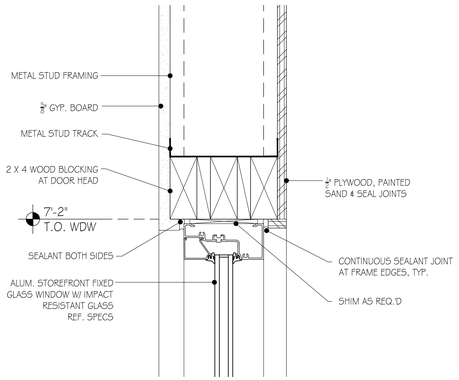
JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	AG
CHECKED BY:	SRG

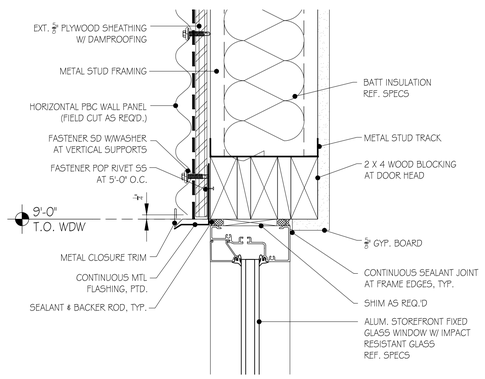
DOOR & WINDOW DETAILS

A5.02



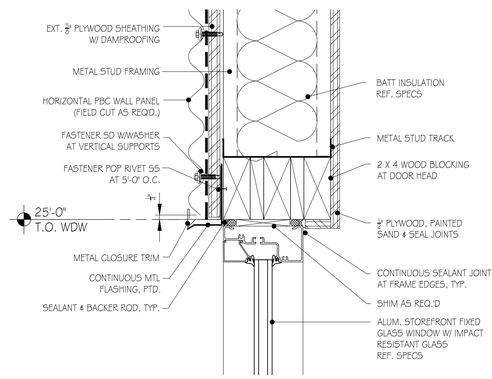
INTERIOR STOREFRONT WDW HEAD **10**

3" = 1'-0"



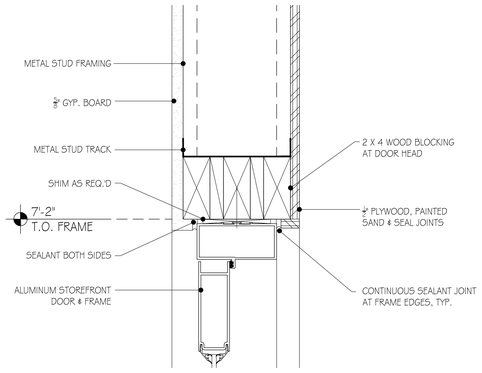
EXTERIOR STOREFRONT WDW HEAD @ METAL STUDS **7**

3" = 1'-0"



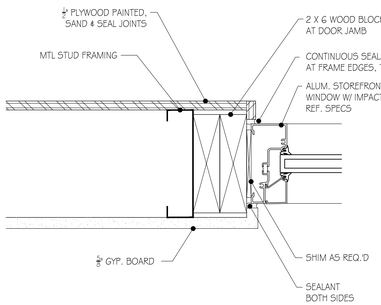
EXTERIOR STOREFRONT WDW HEAD @ METAL STUDS **4**

3" = 1'-0"



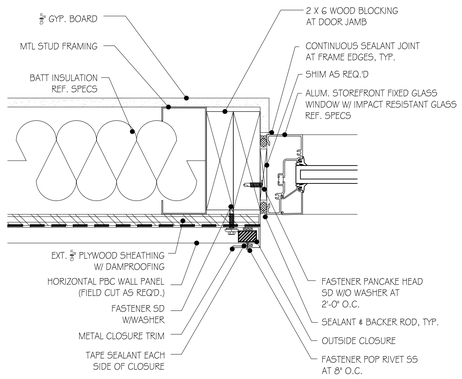
INTERIOR STOREFRONT DOOR HEAD **1**

3" = 1'-0"



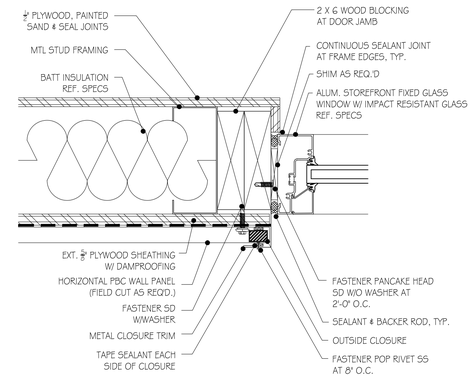
INTERIOR STOREFRONT WDW JAMB **11**

3" = 1'-0"



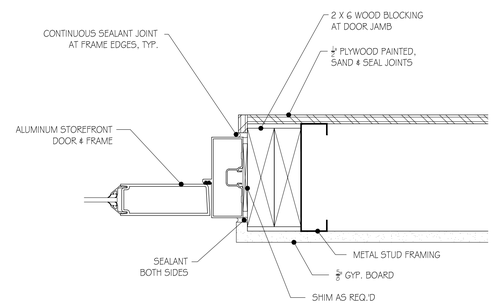
EXTERIOR STOREFRONT WDW JAMB @ METAL STUDS **8**

3" = 1'-0"



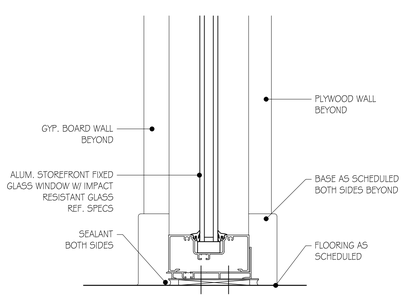
EXTERIOR STOREFRONT WDW JAMB @ METAL STUDS **5**

3" = 1'-0"



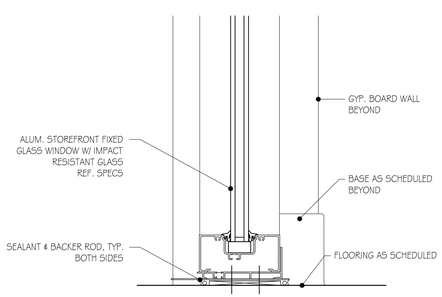
INTERIOR STOREFRONT DOOR JAMB **2**

3" = 1'-0"



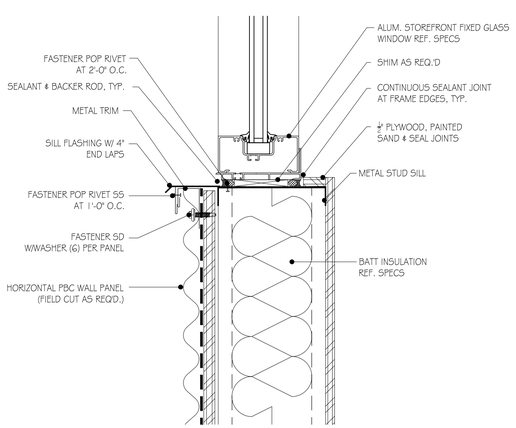
INTERIOR STOREFRONT WDW SILL **12**

3" = 1'-0"



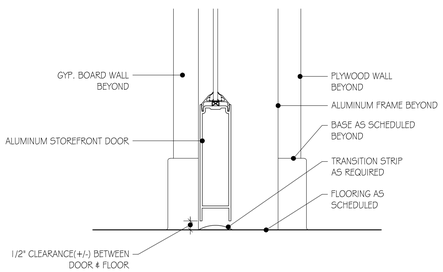
EXTERIOR STOREFRONT WDW SILL @ METAL STUDS **9**

3" = 1'-0"



EXTERIOR STOREFRONT WDW SILL @ METAL STUDS **6**

3" = 1'-0"



INTERIOR STOREFRONT DOOR SILL **3**

3" = 1'-0"

SAM GARCIA ARCHITECT
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REGISTERED ARCHITECT
SAMUEL RAYMOND GARCIA JR.
21333
STATE OF TEXAS

SEPTEMBER 12, 2016

PALMER PAVILION RENOVATION

McALLEN, TEXAS USA

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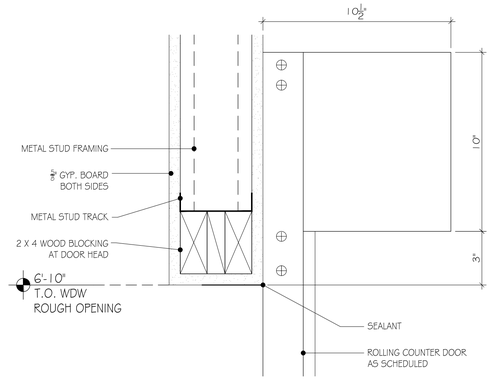
CHECKED BY:	SRG

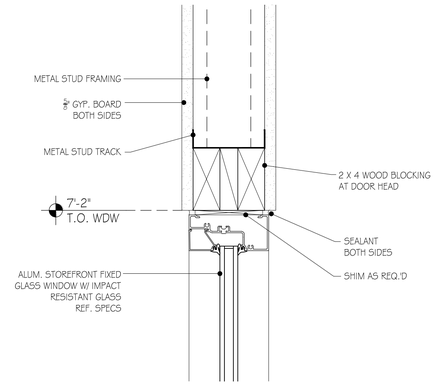
DOOR & WINDOW DETAILS

A5.03



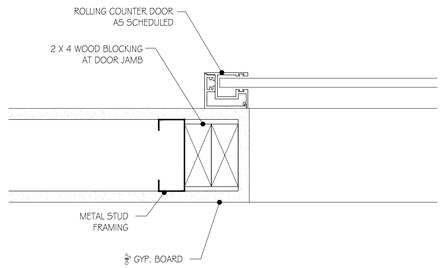
INTERIOR ROLLING COUNTER DOOR HEAD **4**

3" = 1'-0"



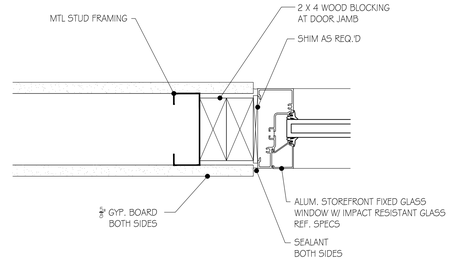
INTERIOR STOREFRONT WDW HEAD **1**

3" = 1'-0"



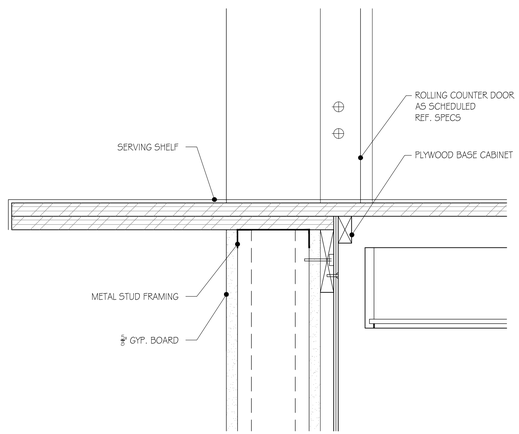
INTERIOR ROLLING COUNTER DOOR JAMB **5**

3" = 1'-0"



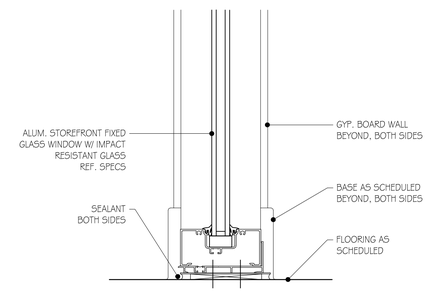
INTERIOR STOREFRONT WDW HEAD **2**

3" = 1'-0"



INTERIOR ROLLING COUNTER DOOR SILL **6**

3" = 1'-0"



INTERIOR STOREFRONT WDW SILL **3**

3" = 1'-0"

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REGISTERED ARCHITECT SAMUEL RAYMOND GARCIA JR. 21333 STATE OF TEXAS

SEPTEMBER 12, 2016

PALMER PAVILION RENOVATION

McALLEN, TEXAS USA

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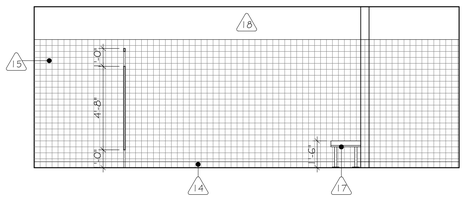
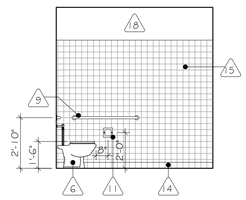
DRAWN BY:	AG
CHECKED BY:	SRG

DOOR & WINDOW DETAILS

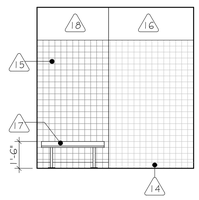
A5.04



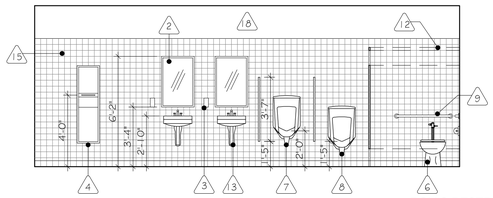
BOY'S RESTROOM 110 ELEVATION **11**
1/4" = 1'-0"



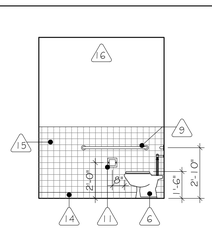
BOY'S RESTROOM 110 ELEVATION **13**
1/4" = 1'-0"



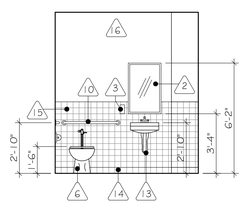
BOY'S RESTROOM 110 ELEVATION **12**
1/4" = 1'-0"



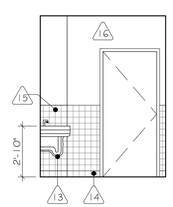
BOY'S RESTROOM 110 ELEVATION **14**
1/4" = 1'-0"



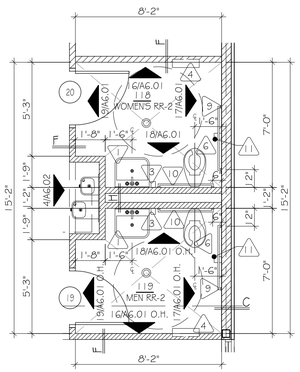
WOMEN'S RESTROOM 118 ELEVATION **17**
1/4" = 1'-0"



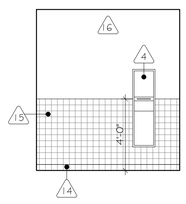
WOMEN'S RESTROOM 118 ELEVATION **18**
1/4" = 1'-0"



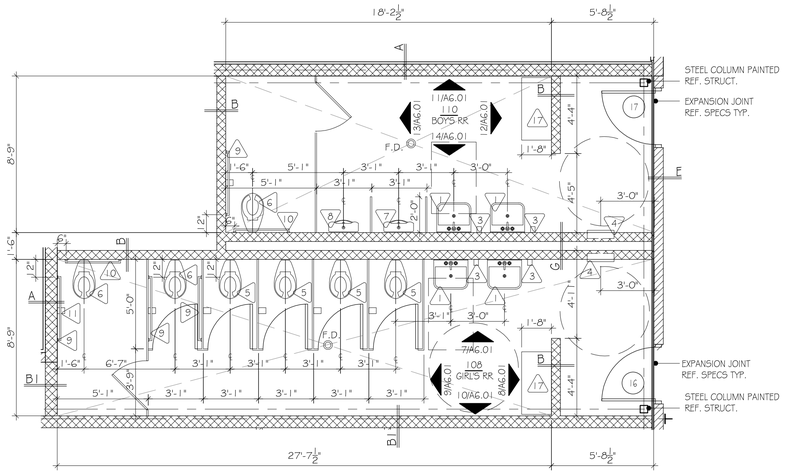
WOMEN'S RESTROOM 118 ELEVATION **19**
1/4" = 1'-0"



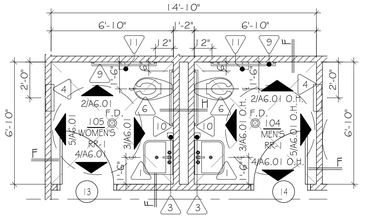
118 / 119 ENLARGED FLOOR PLAN **15**
1/4" = 1'-0"



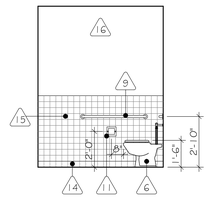
WOMEN'S RESTROOM 118 ELEVATION **16**
1/4" = 1'-0"



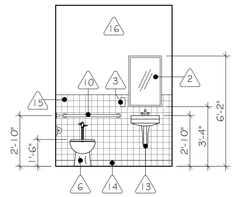
108 / 110 ENLARGED FLOOR PLAN **6**
1/4" = 1'-0"



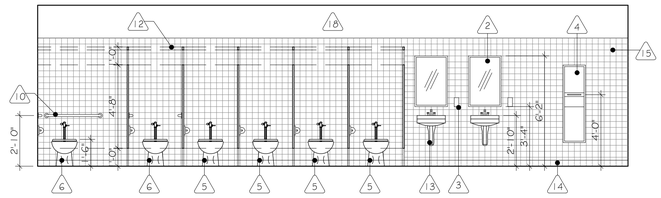
104 / 105 ENLARGED FLOOR PLAN **1**
1/4" = 1'-0"



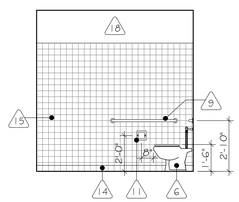
WOMEN'S RESTROOM ELEVATION **2**
1/4" = 1'-0"



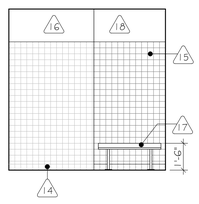
WOMEN'S RESTROOM ELEVATION **3**
1/4" = 1'-0"



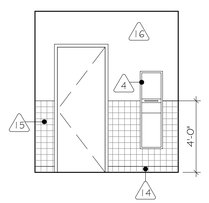
GIRL'S RESTROOM 108 ELEVATION **7**
1/4" = 1'-0"



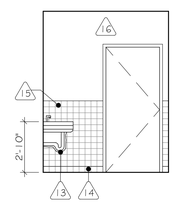
GIRL'S RESTROOM 108 ELEVATION **9**
1/4" = 1'-0"



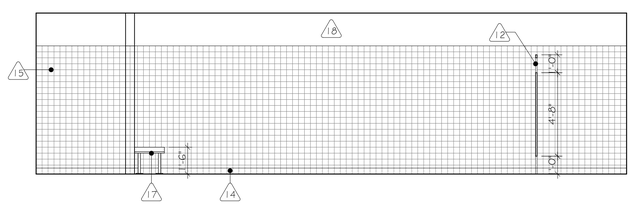
GIRL'S RESTROOM 108 ELEVATION **8**
1/4" = 1'-0"



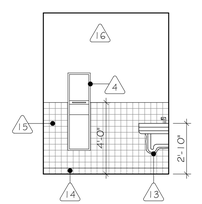
MEN'S RR ELEVATION **4A**
1/4" = 1'-0"



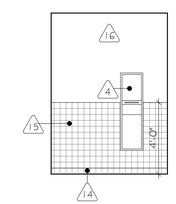
WOMEN'S RR ELEVATION **4**
1/4" = 1'-0"



GIRL'S RESTROOM 108 ELEVATION **10**
1/4" = 1'-0"



WOMEN'S RR ELEVATION **5A**
1/4" = 1'-0"



WOMEN'S RR ELEVATION **5**
1/4" = 1'-0"

KEY NOTES

1. SINK, REF. MEP
2. MIRROR, REF. SPECS.
3. WALL MOUNTED SOAP DISP. REF. SPECS.
4. WALL MOUNTED PAPER TOWEL DISP. / WASTE RECEPTACLE REF. SPECS.
5. TOILET, REF. MEP
6. H.C. TOILET, REF. MEP
7. URINAL, REF. MEP
8. ADA URINAL, REF. MEP
9. 42" GRAB BAR (STRAIGHT)
10. 36" GRAB BAR (STRAIGHT)
11. TOILET PAPER DISP., REF. SPECS.
12. TOILET PARTITIONS, REF. SPECS.
13. ALL EXPOSED WATER SUPPLY LINES & DRAIN PIPES SHALL BE INSULATED TO PROTECT AGAINST CONTACT AT SINKS & LAVATORIES.
14. BASE, REF. SCHEDULE
15. CERAMIC TILE, REF. SCHEDULE
16. PAINTED GYP. BOARD, REF. SCHEDULE
17. ADA BENCH, REF. SPECS.
18. PAINTED CMU, REF. SPECS.

NOTE:

REF. ACCESSIBILITY STANDARDS SHEETS ADA 1 & ADA 2 FOR H.C. STANDARDS, HEIGHTS, & REQUIREMENTS. FOR PLUMBING ACCESSORIES REF. MANUFACTURER'S DATA SHEETS FOR ADA MOUNTING HEIGHTS.

PROVIDE ALL CABINETS WITH LOCKS AND KEYS.

REGISTERED ARCHITECT
SAMUEL RAYMOND GARCIA JR.
21333
STATE OF TEXAS
SEPTEMBER 12, 2016

SAM GARCIA ARCHITECT
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info@samgarciaarchitect.com

PALMER PAVILION RENOVATION

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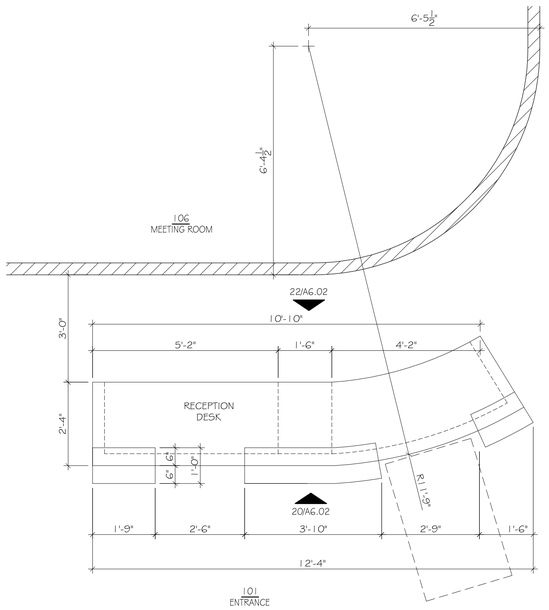
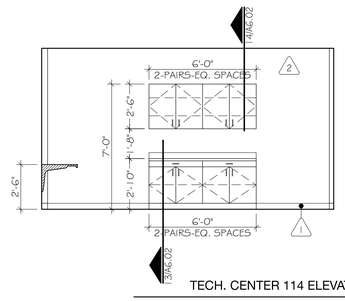
DRAWN BY:	AG
CHECKED BY:	SRG

INTERIOR ELEVATIONS

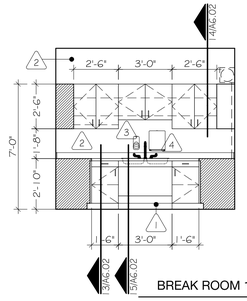
A6.01



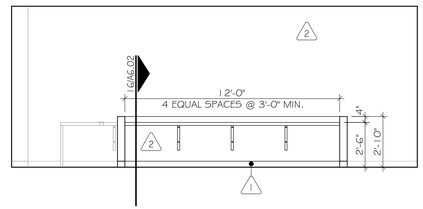
RECEPTION DESK PLAN 17
1/2" = 1'-0"



TECH. CENTER 114 ELEVATION 12
1/4" = 1'-0"



BREAK ROOM 116 ELEVATION 7
1/4" = 1'-0"



TECH. CENTER 114 ELEVATION 1
1/4" = 1'-0"

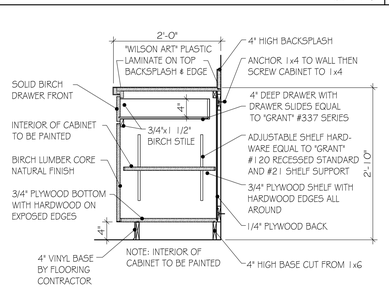
KEY NOTES

1. BASE, REF. SCHEDULE
2. PAINTED GYP. BOARD, REF. SCHEDULE
3. WALL MOUNTED SOAP DISP. REF. SPECS.
4. WALL MOUNTED PAPER TOWEL DISPENSER, REF. SPECS.
5. SERVING SHELF
6. PAINTED PLYWOOD, REF. SCHEDULE

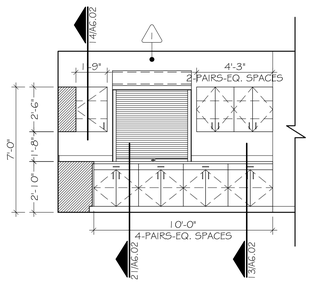
NOTE:

REF. ACCESSIBILITY STANDARDS SHEETS ADA 1 & ADA 2 FOR H.C. STANDARDS, HEIGHTS, & REQUIREMENTS. FOR PLUMBING ACCESSORIES REF. MANUFACTURER'S DATA SHEETS FOR ADA MOUNTING HEIGHTS.

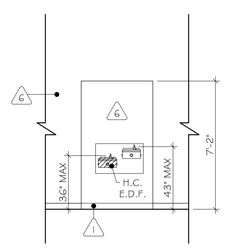
PROVIDE ALL CABINETS WITH LOCKS AND KEYS.



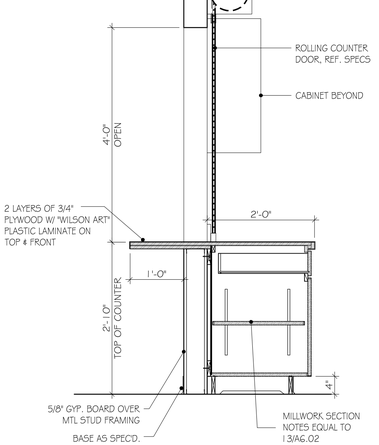
MILLWORK SECTION 13
3/4" = 1'-0"



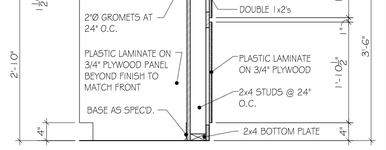
BREAK ROOM 116 ELEVATION 8
1/4" = 1'-0"



GYMNASIUM 1 111 ELEVATION 2
1/4" = 1'-0"



MILLWORK SECTION 21
3/4" = 1'-0"



MILLWORK SECTION 18
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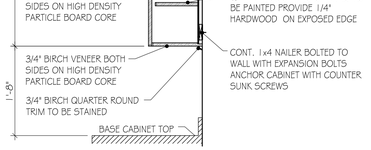

MILLWORK SECTION 14
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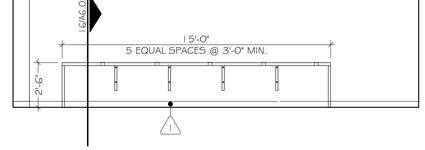
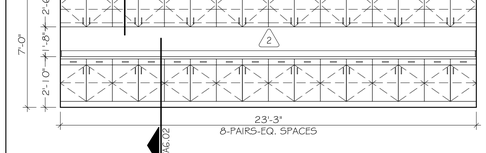
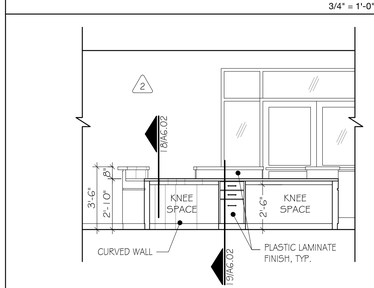


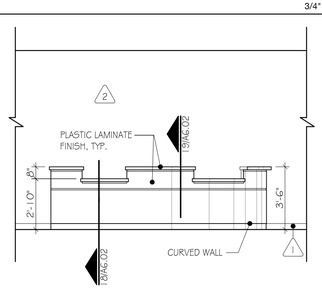
TECH. CENTER 114 ELEVATION 9
1/4" = 1'-0"



GAME ROOM 113 ELEVATION 3
1/4" = 1'-0"



RECEPTION DESK ELEVATION 22
1/4" = 1'-0"



RECEPTION DESK ELEVATION 20
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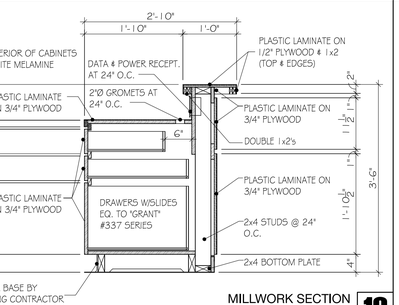
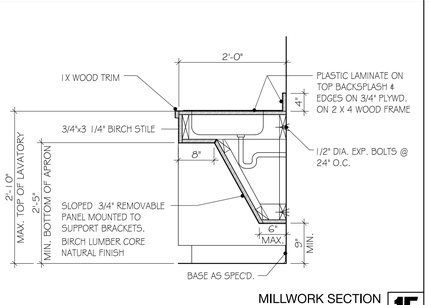
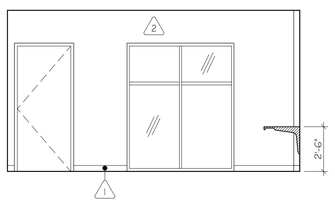


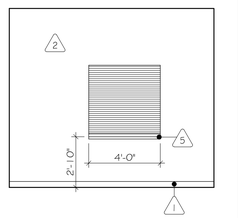
MILLWORK SECTION 19
3/4" = 1'-0"



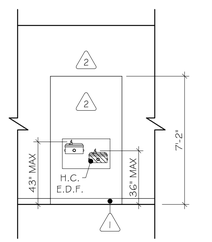
MILLWORK SECTION 15
3/4" = 1'-0"



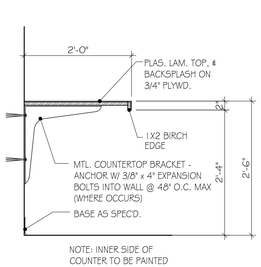
TECH. CENTER 114 ELEVATION 10
1/4" = 1'-0"



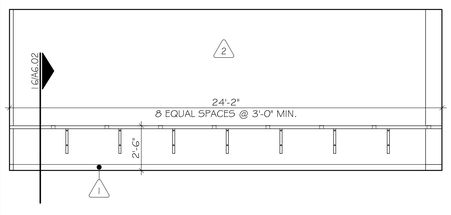
CORRIDOR 117 ELEVATION 5
1/4" = 1'-0"



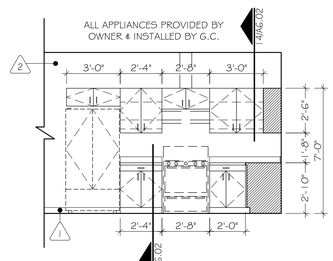
CORRIDOR 117 ELEVATION 4
1/4" = 1'-0"



MILLWORK SECTION 16
3/4" = 1'-0"



TECH. CENTER 114 ELEVATION 11
1/4" = 1'-0"



BREAK ROOM 116 ELEVATION 6
1/4" = 1'-0"

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REGISTERED ARCHITECT
SAM MAYMOND GARCIA JR.
21333
STATE OF TEXAS
SEPTEMBER 12, 2016

PALMER PAVILION RENOVATION

USA

Mc ALLEN, TEXAS

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JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	AG
CHECKED BY:	SRG

INTERIOR ELEVATIONS & MILLWOK SECTIONS

A6.02

DOOR SCHEDULE

DOOR								FRAME			
MARK	TYPE	SINGLE OR PAIR	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	REMARKS
01	A	P	3'-0"	7'-0"	1 ¾"	ALM	CA	-	ALM	CA	DOOR SHALL BE PART OF STOREFRONT WINDOW SYSTEM // WINDOW MARK "G" // PROVIDE KEY-CARD ACCESS CONTROL
02	B	P	3'-0"	7'-0"	1 ¾"	GHM	PTD	B	GHM	PTD	PROVIDE KEY-CARD ACCESS CONTROL
03	B	P	3'-0"	7'-0"	1 ¾"	GHM	PTD	F	GHM	PTD	
04	B	P	3'-0"	7'-0"	1 ¾"	GHM	PTD	B	GHM	PTD	PROVIDE KEY-CARD ACCESS CONTROL
05	B	P	3'-0"	7'-0"	1 ¾"	GHM	PTD	B	GHM	PTD	PROVIDE KEY-CARD ACCESS CONTROL
06	B	S	3'-0"	7'-0"	1 ¾"	GHM	PTD	A	GHM	PTD	PROVIDE KEY-CARD ACCESS CONTROL
07	A	S	3'-0"	7'-0"	1 ¾"	ALM	CA	G	ALM	CA	PROVIDE KEY-CARD ACCESS CONTROL
08	A	P	3'-0"	7'-0"	1 ¾"	ALM	CA	-	ALM	CA	DOOR SHALL BE PART OF STOREFRONT WINDOW SYSTEM // WINDOW MARK "H" // PROVIDE KEY-CARD ACCESS CONTROL
09	A	P	3'-0"	7'-0"	1 ¾"	ALM	CA	H	ALM	CA	PROVIDE KEY-CARD ACCESS CONTROL
10	A	P	3'-0"	7'-0"	1 ¾"	ALM	CA	-	ALM	CA	DOOR SHALL BE PART OF STOREFRONT WINDOW SYSTEM // WINDOW MARK "C"
11	D	P	3'-0"	7'-0"	1 ¾"	WD	STN	D	HM	PTD	
12	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
13	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
14	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
15	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
16	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
17	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
18	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
19	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
20	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
21	D	S	3'-0"	7'-0"	1 ¾"	WD	STN	C	HM	PTD	
22	D	P	3'-0"	7'-0"	1 ¾"	WD	STN	D	HM	PTD	
23	C	S	16'-0"	4'-0"	-	STEEL	PM	-	STEEL	PM	MANUAL OH COILING DOOR, REFER TO SPECS
24	C	S	16'-0"	4'-0"	-	STEEL	PM	-	STEEL	PM	MANUAL OH COILING DOOR, REFER TO SPECS
25	C	S	16'-0"	4'-0"	-	STEEL	PM	-	STEEL	PM	MANUAL OH COILING DOOR, REFER TO SPECS
26	C	S	16'-0"	4'-0"	-	STEEL	PM	-	STEEL	PM	MANUAL OH COILING DOOR, REFER TO SPECS
27	B	S	3'-0"	7'-0"	1 ¾"	GHM	PTD	A	GHM	PTD	
28	B	S	3'-0"	7'-0"	1 ¾"	GHM	PTD	A	GHM	PTD	
29	F	S	4'-0"	4'-0"	-	STEEL	PM	-	STEEL	PM	ROLLING COUNTER DOOR, REFER TO SPECS

ABBREVIATIONS			
ALM	ALUMINUM	PTD	PAINTED
CA	CLEAR ANODIZED	STN	NATURAL STAINED FINISH
GHM	GALVANIZED HOLLOW METAL	WD	SOLID CORE WOOD
HM	HOLLOW METAL	PM	PER MANUFACTURER

DOOR SCHEDULE
N.T.S. **2**

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING		NOTES
				NORTH	EAST	SOUTH	WEST	MTL.	HEIGHT	
101	ENTRANCE	F.1	B.1	W.1	W.1	W.1	W.1	C.1	10'-0"	
102	LOBBY	F.1	B.1	W.1	W.1	W.1	W.1	C.1	10'-0"	
103	JANITOR'S	F.1	B.1	W.1	W.1	W.1	W.1	C.2	9'-0"	
104	MEN RR-1	F.2	B.2	W.3	W.3	W.3	W.3	C.2	9'-0"	
105	WOMEN RR-1	F.2	B.2	W.3	W.3	W.3	W.3	C.2	9'-0"	
106	MEETING ROOM	F.1	B.1	W.1	W.1	W.1	W.1	C.1	9'-0"	
106-B	M.D.F.	F.1	B.1	W.5	W.1	W.1	W.1	C.1	9'-0"	
107	STORAGE	F.1	B.1	W.5	W.1	W.1	W.1	C.1	9'-0"	
108	GIRL'S RR	F.2	B.2	W.6	W.2	W.6	W.6	C.2	9'-0"	
109	MECH./ELEC.	F.3	B.3	W.5	W.5	W.5	W.5	C.3	-	
110	BOY'S RR	F.2	B.2	W.6	W.2	W.6	W.6	C.2	9'-0"	
111	GYMNASIUM-1	F.4	B.1	W.4	W.4	W.4	W.4	C.3	-	PAINT ALL EXPOSED STRUCTURE, COLOR SELECTED BY ARCHITECT, REF. TO CEILING PLAN
112	GYMNASIUM-2	F.4	B.1	W.4	W.4	W.4	W.4	C.3	-	PAINT ALL EXPOSED STRUCTURE, COLOR SELECTED BY ARCHITECT, REF. TO CEILING PLAN
113	GAME ROOM	F.1	B.1	W.1	W.1	W.1	W.1	C.1	12'-0"	
114	TECH CENTER	F.1	B.1	W.1	W.1	W.1	W.1	C.1	9'-0"	
115	CAFETERIA	F.1	B.1	W.1	W.1	W.1	W.1	C.1	9'-0"	
116	BREAK RM.	F.1	B.1	W.1	W.1	W.1	-	C.1	9'-0"	
117	CORRIDOR	F.1	B.1	W.1	W.1	-	W.1	C.1	10'-0"	
118	WOMEN RR-2	F.2	B.2	W.3	W.3	W.3	W.3	C.2	9'-0"	
119	MEN RR-2	F.2	B.2	W.3	W.3	W.3	W.3	C.2	9'-0"	
120	MECH.-2	F.3	B.3	W.1	W.1	W.1	W.1	C.3	-	
121	RISER ROOM	F.3	B.3	W.1	W.5	W.5	W.1	C.3	-	

FLOOR FINISH KEY	
F.1	V.C.T.
F.2	2" x 2" CERAMIC TILE
F.3	SEALED CONCRETE
F.4	SPORTS FLOORING

BASE TYPE KEY	
B.1	4" RUBBER BASE
B.2	CERAMIC TILE COVE BASE
B.3	NONE

WALL FINISH KEY	
W.1	GYPSUM BOARD (T. F. S. & P)
W.2	CERAMIC WALL TILE WAINSCOT @ 7'-2" HT. & GYP. BRD (MOISTURE RESISTANT) T.F.S.& P. ABOVE
W.3	CERAMIC WALL TILE WAINSCOT @ 4'-0" HT. & GYP. BRD (MOISTURE RESISTANT) T.F.S.& P. ABOVE
W.4	1/2" PLYWOOD, PAINT W/ HEAVY COAT PAINT, SAND, & SEAL JOINTS
W.5	CMU - PAINTED
W.6	CERAMIC WALL TILE WAINSCOT @ 7'-2" HT. & PAINTED CMU ABOVE

CEILING FINISH KEY	
C.1	2' x 4' A.C.T.
C.2	MOISTURE RESISTANT GYP. BRD (T.F.T.& P.)
C.3	OPEN TO STRUCTURE.

PAINTING NOTE:
NEW BLOCK WALL TO RECEIVE HIGH PERFORMANCE EPOXY BLOCK FILLER, PRIMER, & COATING. EXISTING BLOCK TO RECEIVE NEW COATING ONLY. METAL STUD & GYPSUM WALLS TO RECEIVE LOW VOC LATEX PRIMER & COATING.

ROOM FINISH SCEHDULE
N.T.S. **1**

GENERAL NOTES

1. THESE DRAWINGS ARE INTENDED TO ILLUSTRATE THE LOCATIONS OF ALL NEW CONSTRUCTION, BUT ARE NOT TO BE SCALED. THE DIMENSIONS SHALL SUPERCEDE THE SCALE.

2. GENERAL CONTRACTOR IS REQUIRED TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ALL INFORMATION IN REGARDS TO THE EXISTING FIELD CONDITIONS, MATERIALS, AND METHODS OF CONSTRUCTION, DIMENSIONS, AND/OR DEFLECTIONS SHALL BE OBSERVED, NOTED, AND VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO ANY CONSTRUCTION OR FABRICATION. ANY AND ALL INFORMATION GATHERED THAT IS IN CONFLICT WITH THE CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH ANY RELATED WORK.

3. FINISH FLOOR ELEVATIONS ARE 100'-0" AND ARE TO TOP OF CONCRETE UNLESS OTHERWISE NOTED OR SPECIFIED.

4. ALL ANGLES ARE 0, 45, OR 90 DEGREES UNLESS OTHERWISE SPECIFIED.

5. ALL EXTERIOR EXPOSED METAL SHALL BE GALVANIZED AND PAINTED UNLESS OTHERWISE NOTED.

6. ALL SECTIONS, DETAILS, MATERIALS, METHODS, ETC, THAT ARE SHOWN AND/OR NOTED ON ANY PLAN, SECTION, ELEVATION, DETAIL, OR SCHEDULE SHALL APPLY TO ALL OTHER SIMILAR LOCATIONS UNLESS NOTED OTHERWISE.

7. WHERE MATERIALS ARE APPLIED TO OR ARE IN DIRECT CONTACT WITH WORK INSTALLED BY ANOTHER SUBCONTRACTOR, COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF THE SUBSTRATE AS SUITABLE FOR THE APPLICATION INTENDED.

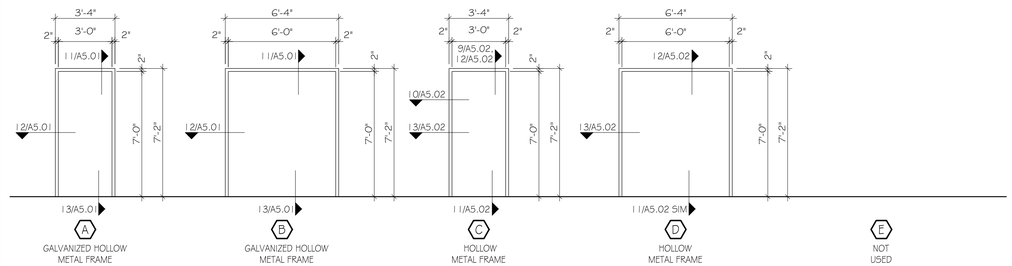
8. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR THE DETAILED DESIGN OF STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.

9. ALL CONSTRUCTION AND EQUIPMENT IS NEW UNLESS NOTED OTHERWISE.

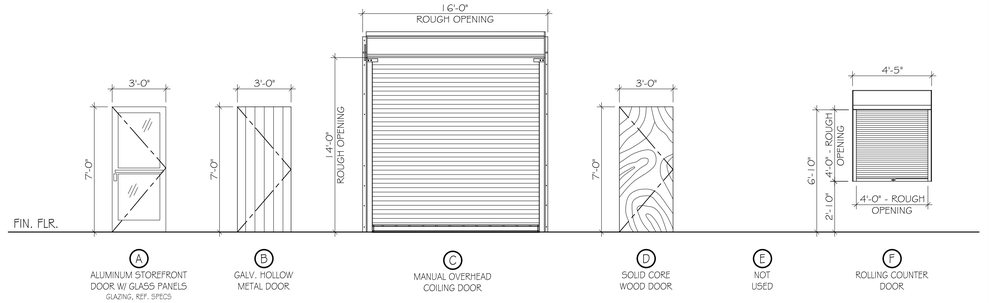
10. CONTRACTOR SHALL PROVIDE THE FOLLOWING ITEMS:
   A. TRANSITION STRIPS WHERE ALL DISSIMILAR FLOOR, WALL, AND CEILING FINISHES MEET.
   B BLOCKING FOR ALL ITEMS TO BE ANCHORED OR SECURED TO WALLS, FLOORS, & CEILINGS.
   C. CONCEAL ALL PIPING IN WALLS, FLOORS, ABOVE CEILINGS, ETC.

11. CAULK AT JUNCTURE OF INTERIOR FACES OF DOOR FRAMES, WINDOW FRAMES, EXTERIOR WINDOW FRAMES, CABINET WORK, AND CASEWORK WITH ADJACENT MATERIALS.

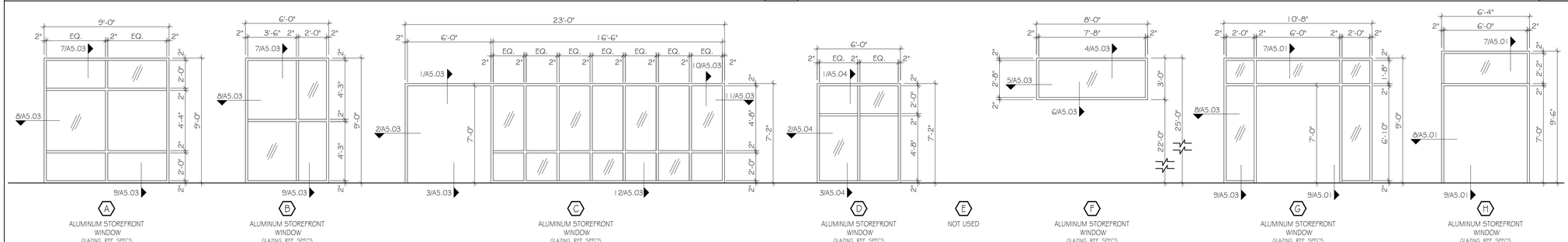
12. THE GENERAL CONTRACTOR SHALL PROVIDE ALL APPROPRIATE FLASHINGS, COUNTERFLASHINGS, SEAL- ANTS, CAULKING, END DAMS, AND OTHER ACCESSORIES AT ALL NEW EXTERIOR OPENINGS TO ENSURE A WATERPROOF BUILDING ENVELOPE.



DOOR FRAME TYPES
1/4" = 1'=-0" **4**



DOOR TYPES
1/4" = 1'=-0" **3**



WINDOW ELEVATIONS
1/4" = 1'=-0" **5**

REGISTERED ARCHITECT
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STATE OF TEXAS
SEPTEMBER 12, 2016

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PALMER PAVILION RENOVATION

USA

Mc ALLEN, TEXAS

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JOB #:	2015-010
PHASE:	100% CD
DATE:	9.12.2016
DRAWN BY:	AG
CHECKED BY:	SRG

SCHEDULES & TYPES

A7.01

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THE PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

C. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 8000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (EQUIPMENT FLANGES, FRAMING, OR ESCUTCHEONS) AROUND OPENINGS IN FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES.

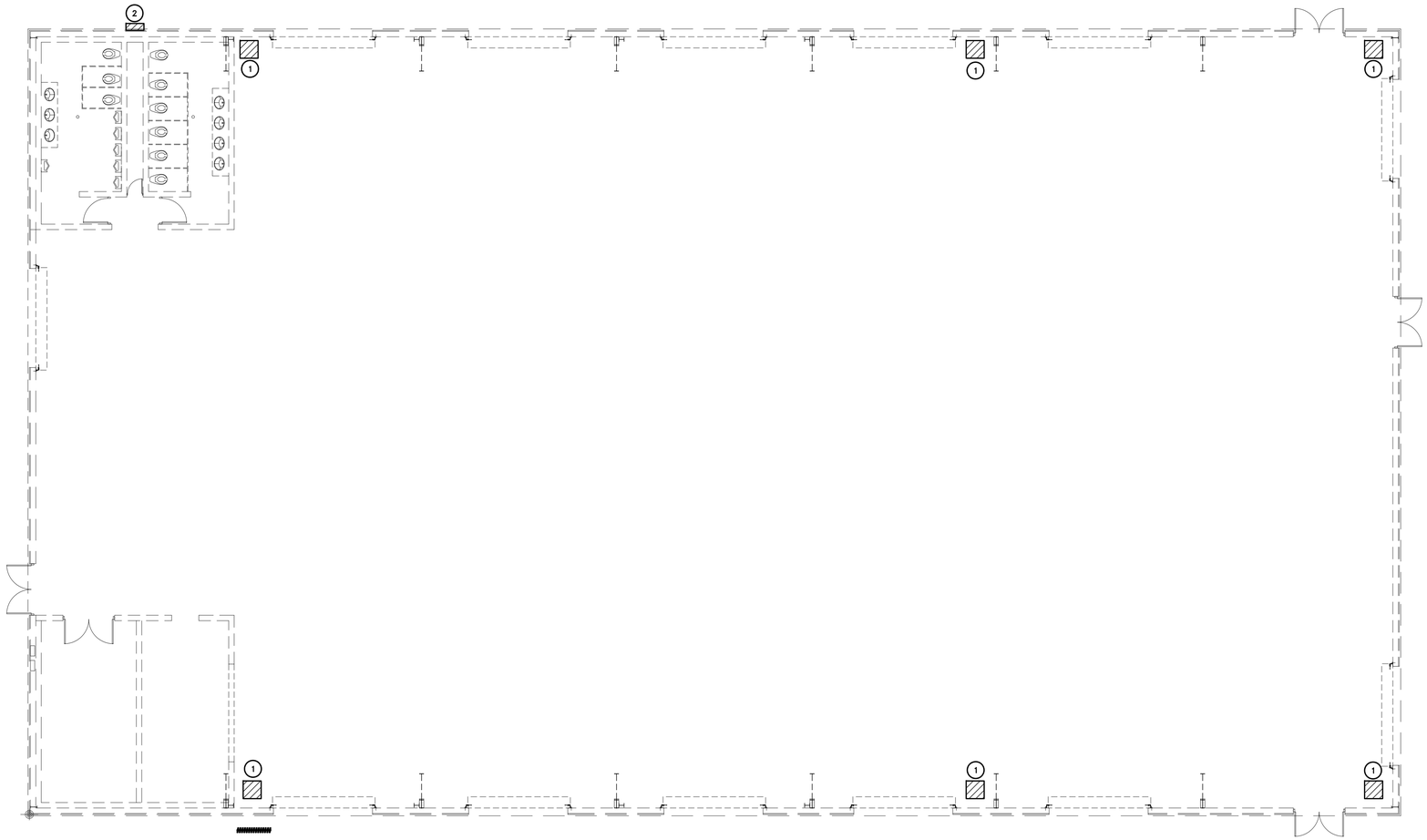
D. CONTRACTOR SHALL REMOVE AND RELOCATE ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER SPECIFIED LOCATION(S). OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC. SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR.

E. EXISTING MECHANICAL EQUIPMENT CHARGED WITH REFRIGERANT AND SCHEDULED FOR REMOVAL OR DEMOLITION SHALL BE DISPOSED OF IN A LEGAL MANNER.

DEMOLITION KEY NOTES:

(1) EXISTING GAS UNIT HEATER AND ASSOCIATED CONTROLS TO BE REMOVED.

(2) REMOVE EXISTING EXHAUST FAN, ASSOCIATED DUCTWORK, AND AIR DEVICES.



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DEMOLITION
MECHANICAL FLOOR PLAN

1/8" = 1'-0"

1

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PALMER PAVILION RENOVATION

USA

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DATE:	09.12.2016
DRAWN BY:	T.T.
CHECKED BY:	J.P.

STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED PROFESSIONAL ENGINEER

09.12.2016

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8. THERMOSTAT SHALL BE LOCATED 60-INCHES ABOVE FINISHED FLOOR. PROVIDE AND INSTALL WITH A VANDAL PROOF METAL ENCLOSURE. FURNISH WITH LOCK AND KEY.

9. FURNISH AND INSTALL LOUVER EQUAL TO A RUSKIN MODEL ELF375H. FURNISH WITH FLANGE FRAME AND KYNAR FINISH. COORDINATE COLOR SELECTION WITH ARCHITECT.

10. AIR HANDLING UNIT SHALL BE MOUNTED VERTICALLY ON SHEETMETAL PLENUM BOX AND 4-INCH CONCRETE PAD. REFER TO DETAIL.

11. AIR HANDLING UNIT SHALL BE MOUNTED HORIZONTALLY ABOVE CEILING AND SUSPENDED FROM STRUCTURE. PROVIDE RETURN DUCT OF EQUAL SIZE OF UNIT OPENING. REFER TO DETAIL.

12. PROVIDE AND INSTALL REFRIGERANT LINES PER MANUFACTURER RECOMMENDATIONS. PROVIDE INSULATION ON RETURN LINES. REFRIGERANT LINES LOCATED ON EXTERIOR SHALL BE PROVIDED WITH ALUMINUM JACKET. ROUTE REFRIGERANT LINES TO ASSOCIATED AIR HANDLING UNIT(S).

13. REFRIGERANT LINES, CONDENSATE LINE, CONTROL WIRING, AND ELECTRICAL SERVICE SERVING WALL MOUNTED UNIT SHALL BE CONCEALED IN WALL. REFER TO DETAIL.

KEY NOTES:

1. PROVIDE AND INSTALL FABRIC DUCT EQUAL TO DUCTSOX CYLINDRICAL SERIES "VERONA" TYPE DUCT WITH TWO WAY COMFORT FLOW AIR DISCHARGE. MOUNT DUCT AS HIGH AS POSSIBLE. COORDINATE STANDARD COLOR SELECTION WITH ARCHITECT.

2. CONNECT FABRIC DUCT TO SHEETMETAL PER INLET ATTACHMENT DETAIL. PROVIDE AND INSTALL ADJUSTABLE FABRIC FLOW DEVICE AT ZIPPER LOCATION AT INLET. REFER TO ADJUSTABLE FLOW DEVICE DETAIL.

3. PROVIDE AND INSTALL TWO ROW CABLE SUSPENSION SYSTEM FOR FABRIC DUCT. ANCHOR CABLE END ONTO FIELD ASSEMBLED UNISTRUT SUPPORT.

4. KITCHEN EXHAUST DUCT SHALL BE WELDED STEEL WITH FIRE-WRAP INSULATION.

5. ROOFTOP UNIT SHALL BE MOUNTED ON ROOF SUPPORT SYSTEM EQUAL TO A RPS MODEL ER-4. SUPPORT SYSTEM SHALL ELEVATE EQUIPMENT A MINIMUM 12-INCHES ABOVE FINISHED ROOF.

6. EXTERIOR DUCTS SHALL BE SHEETMETAL WITH 2-INCH EXTERNAL FIBROUS GLASS DUCT (DUCT BOARD) AND FOIL SKIN KRAFT FACING. INSULATION SYSTEM SHALL BE FURNISHED WITH ALUMINUM JACKET EQUAL TO VENTURE CLAD VENTURE TAPE "1577CW" 5-PLY CLADDING.

7. RISE DUCT ALONG WALL AND PENETRATE AT 10-FEET ABOVE FINISHED ROOF ELEVATION. COORDINATE FINAL ELEVATIONS WITH ARCHITECT PRIOR TO FABRICATION AND/OR INSTALLATION.

GENERAL NOTES:

A. REFER TO SCHEDULE SHEET FOR ADDITIONAL GENERAL MECHANICAL NOTES.

B. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRANSITIONS FROM MECHANICAL EQUIPMENT TO DUCTS. VERIFY EQUIPMENT OUTLET/INLET SIZE WITH SCHEDULE.

C. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO MAINTAIN ACCESS CLEARANCES FOR ALL MECHANICAL EQUIPMENT.

D. CONCEALED DUCTS SHALL BE SHEETMETAL SINGLE WALL TYPE WITH EXTERNAL WRAP INSULATION UNLESS OTHERWISE NOTED.

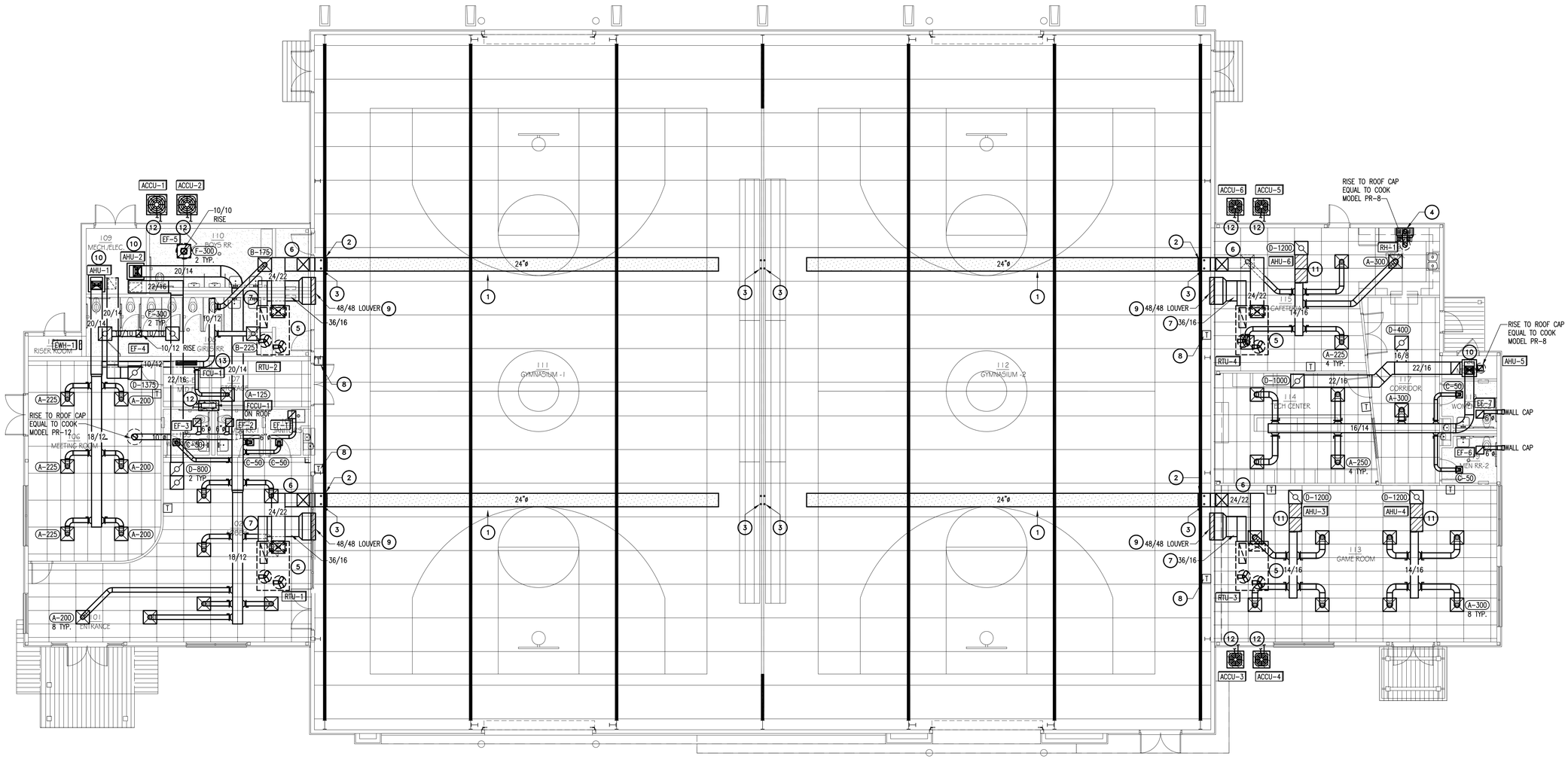
E. DUCTS LOCATED INSIDE MECHANICAL ROOMS SHALL BE SHEETMETAL INTERNALLY LINED DUCTS.

F. CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL MECHANICAL EQUIPMENT LOCATED ABOVE INACCESSIBLE CEILINGS.

G. CONTRACTOR SHALL PROVIDE STRUCTURAL SUPPORTS FOR ALL MECHANICAL EQUIPMENT SUSPENDED FROM STRUCTURE.

H. CONTRACTOR SHALL COORDINATE ALL ROOF PENETRATIONS AND ROOFING WORK WITH ROOFING CONTRACTOR AS REQUIRED TO MAINTAIN ROOF WARRANTY.

I. LOCATE EXHAUST HOODS/FANS MINIMUM 10-FEET FROM ANY OUTSIDE AIR INTAKE.



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MECHANICAL FLOOR PLAN 1

1/8" = 1'-0"

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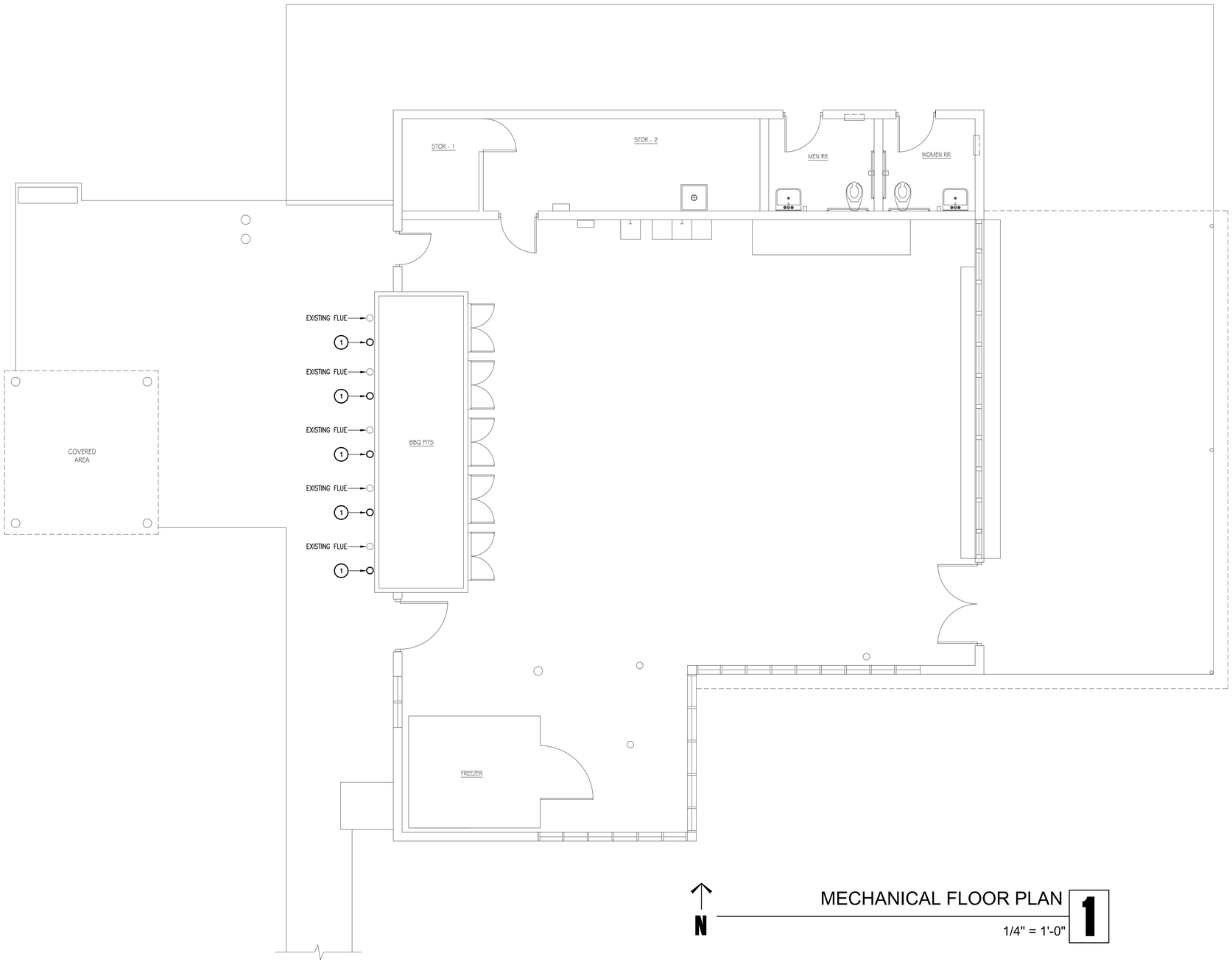
GENERAL NOTES:

A. REFER TO SCHEDULE SHEET FOR ADDITIONAL GENERAL MECHANICAL NOTES.

KEY NOTES:

(1) FURNISH AND INSTALL 6"ø STEEL PIPE FLUE VENT WITH WEATHER CAP TO MATCH EXISTING ADJACENT FLUE. NEW FLUE MATERIAL, HEIGHT, BRACING, DAMPERS AND CLEAN OUT HATCH ARE TO MATCH EXISTING. FIELD VERIFY ALL MATCHING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.



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MECHANICAL FLOOR PLAN 1

1/4" = 1'-0"

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M1.02

GENERAL MECHANICAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION EFFORTS. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS AS REQUIRED BY FIELD CONDITIONS.
2. CONTRACTOR SHALL HANG AND INSTALL ALL DUCTWORK TIGHT WITH THE BUILDING STRUCTURE TO ACCOMODATE CEILINGS. CONTRACTOR SHALL COORDINATE INSTALLATION WORK WITH ALL OTHER TRADES. ALL DUCTWORK SHALL BE MODIFIED AS REQUIRED TO FIT AROUND BUILDING STRUCTURES.
3. CONTRACTOR SHALL BALANCE ALL AIR DISTRIBUTION SYSTEMS TO ACHIEVE THE AIR VOLUME REQUIREMENTS AS INDICATED. BALANCING SHALL INCLUDE ADJUSTMENT OF ALL MANUAL VOLUME DAMPERS AND INDIVIDUAL DIFFUSER DAMPERS.
4. CONTRACTOR SHALL MOUNT ALL THERMOSTATS 48-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. COORDINATE THE FINAL LOCATION OF EACH THERMOSTAT WITH ROOM FINISHES. PROVIDE ALL CONTROL VOLTAGE WIRING FOR THERMOSTAT INSTALLATION.
5. CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF ALL CEILING AIR DEVICES WITH LIGHTING INSTALLATIONS AND ARCHITECTURAL CEILING PLANS. AIR DEVICES SHALL BE RELOCATED IF REQUIRED TO AVOID OBSTRUCTION WITH DUCTWORK AND LIGHT FIXTURES.
6. PROVIDE SMOKE DETECTORS AND SHUTDOWN CONTROLS ON AIR HANDLING UNITS. SMOKE DETECTORS SHALL BE PROVIDED, INSTALLED, AND WIRED FOR SHUTDOWN BY DIVISION 16.

AIR DEVICE SCHEDULE

DESIGNATION	SIZE	MOUNTING	THROW	NECK TYPE	CONSTRUCTION	OBD	MAX NC	FINSH	MANUFACTURER	MODEL
A	24 X 24	LAY-IN	4-WAY	ROUND	ALUMINUM	YES	30	#26 WHITE	TITUS	OMNI-AA
B	24 X 24	SURFACE	4-WAY	ROUND	ALUMINUM	YES	30	#26 WHITE	TITUS	OMNI-AA
C	12 X 12	SURFACE	4-WAY	ROUND	ALUMINUM	YES	30	#26 WHITE	TITUS	OMNI-AA
D	24 X 24	LAY-IN	-	-	ALUMINUM	NO	30	#26 WHITE	TITUS	50F
E	18 X 8	SURFACE	-	-	ALUMINUM	YES	30	#26 WHITE	TITUS	350ZFS

LEGEND: CFM / A-200 / DESIGNATION

NOTES:
1. SIZE SHALL INCLUDE MODULE WITH FULL FACE.
2. COORDINATE AIR DEVICE TYPE WITH ARCHITECTURAL CEILINGS.
3. NECK SIZE PER NECK/BRANCH DUCT SIZE CHART.

ROOF TOP UNIT SCHEDULE

ROOF TOP UNIT DESIGNATION	RTU-1	RTU-2	RTU-3	RTU-4
SUPPLY CFM	3300	3300	3300	3300
OUTSIDE AIR CFM	600	600	600	600
EXTERNAL S.P. ("W.G.)	0.6	0.6	0.6	0.6
MOTOR HP.	-	-	-	-
TOTAL CAPACITY (MBH)	112.35	112.35	112.35	112.35
SENSIBLE CAPACITY (MBH)	86.25	86.25	86.25	86.25
ENTERING AIR (DB/WB)'F	79/65	79/65	79/65	79/65
LEAVING AIR (DB/WB)'F	53.6/53	53.6/53	53.6/53	53.6/53
CONDENSER AIR (DB)'F	98	98	98	98
HEATER CAPACITY (KW)	24.0	24.0	24.0	24.0
STAGES	2	2	2	2
VOLTAGE/PHASE	208/3ø	208/3ø	208/3ø	208/3ø
MCA/MOCP	89.9/90	89.9/90	89.9/90	89.9/90
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL	50TC-012	50TC-012	50TC-012	50TC-012
UNIT WEIGHT (LBS)	885	885	885	885
EFFICIENCY EER (SEER)	11.2	11.2	11.2	11.2
REMARKS	1,2,3,4,5,6,7,8,9	1,2,3,4,5,6,7,8,9	1,2,3,4,5,6,7,8,9	1,2,3,4,5,6,7,8,9

REMARKS
1. PROVIDE PROGRAMMABLE THERMOSTAT WITH HUMIDITY CONTROL WHERE SHOWN.
2. PROVIDE SINGLE POINT POWER.
3. PROVIDE WITH ROOF SUPPORT SYSTEM FASTENED TO UNIT.
4. PROVIDE WITH HINGED ACCESS DOORS.
5. CONDENSER COILS SHALL BE CORROSION RESISTANT.
6. PROVIDE WITH OUTSIDE AIR HOOD AND 2-POSITION MOTORIZED DAMPER.
7. PROVIDE WITH HOT-GAS REHEAT AND HUMIDITY CONTROL.
8. PROVIDE WITH CONDENSER COIL HAIL GUARDS.
9. PROVIDE WITH SMOKE DETECTORS. (SUPPLY & RETURN)

FANCOIL SCHEDULE

AIR HANDLING UNIT DESIGNATION	FCU-1
INDOOR UNIT TYPE	WALL
SUPPLY CFM	583
TOTAL COOLING CAPACITY (MBH)	18.0
HEATING CAPACITY (MBH)	21.6
ENTERING AIR (DB/WB)'F	80/67
VOLTAGE/PHASE	208/1ø
MCA/MOCP	N/A
MANUFACTURER	DAIKIN
MODEL	FTXS18LVJU
UNIT WEIGHT (LBS)	31
CONDENSING UNIT DESIGNATION	FCCU-1
CONDENSER AIR (CLG'F/HTG'F)	95/47
REFRIGERANT	R-410A
COOLING OPER. RANGE	14'F - 115'F
HEATING OPER. RANGE	5'F - 64'F
VOLTAGE/PHASE	208/1ø
MCA/MOCP	13.7/20
MANUFACTURER	DAIKIN
MODEL	RXS18LVJU
UNIT WEIGHT (LBS)	104
REMARKS	1,2,3,4,5,6,7

REMARKS
1. PROVIDE WITH WALL MOUNTED THERMOSTAT. (DO NOT PROVIDE REMOTE CONTROL)
2. PROVIDE INDOOR UNIT WITH WALL BRACKET.
3. PROVIDE AND INSTALL REFRIGERANT LINES PER MANUFACTURER RECOMMENDATIONS.
4. PROVIDE WITH ROOF CURB FOR CONDENSER UNIT MOUNTING.
5. SIGHT GLASSES, FILTER DRYERS, AND FIELD SUPPLIED EXPANSION VALVES ARE NOT TO BE USED ON DAIKIN EQUIPMENT
6. PROVIDE CONDENSER COIL CORROSION PROTECTION.
7. PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO CONDENSING UNIT AND WIRE TO FANCOIL.

GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	KW	KILOWATTS
AHU	AIR HANDLING UNIT	L	LOUVER
ACCU	AIR COOLED CONDENSING UNIT	MAX	MAXIMUM
DB	DRY BULB	MIN	MINIMUM
EDH	ELECTRIC DUCT HEATER	NTS	NOT TO SCALE
EF	EXHAUST FAN	OBD	OPPOSED BLADE DAMPER
FCU	FAN COIL UNIT	S.P.	STATIC PRESSURE
FCCU	FAN COOLED CONDENSING UNIT	WB	WET BULB

RANGE HOOD SCHEDULE

DESIGNATION	RHEF-1
EXHAUST CFM	550
FAN TYPE	IN-LINE
HOOD HEIGHT	6"
HOOD WIDTH	30"
HOOD LENGTH	17.5"
AMPS	5.0
VOLTAGE/PHASE	120/1ø
MANUFACTURER	DENLAR
MODEL	D1030-IE-DF
REMARKS	1,2,3,4,5,6

REMARKS
1. ROUTE 8"ø DUCT UP TO ATTIC AREA AND TERMINATE AT WALL LOUVER. REFER TO MECHANICAL FLOOR PLAN.
2. HOOD SHALL BE STAINLESS STEEL CONSTRUCTION WITH BRUSHED FINISH.
3. PROVIDE WITH PRENSTALLED FIRE PROTECTION SYSTEM.
4. HOOD SHALL AUTOMATICALLY DISCONNECT RANGE UPON SYSTEM DISCHARGE (RELAY).
5. FURNISH WITH 60W INCADESCENT SHATTER-PROOF BULB.
6. INSTALL BACKDRAFT DAMPER IN DUCT RISE, UNLESS ALREADY FURNISHED WITH HOOD.

NECK/BRANCH DUCT SIZE CHART

SUPPLY DUCT			RETURN DUCT		
NECK/BRANCH SIZE		CFM RANGE	NECK/BRANCH SIZE		CFM RANGE
6" DIAMETER	6/6 DUCT	0 - 100	6" DIAMETER	6/6 DUCT	0 - 75
8" DIAMETER	12/6 DUCT	101 - 225	8" DIAMETER	12/6 DUCT	76 - 150
10" DIAMETER	12/8 DUCT	226 - 400	10" DIAMETER	12/8 DUCT	151 - 275
12" DIAMETER	12/10 DUCT	401 - 675	12" DIAMETER	12/10 DUCT	276 - 475
14" DIAMETER	14/12 DUCT	676 - 1000	14" DIAMETER	14/12 DUCT	476 - 700
16" DIAMETER	18/12 DUCT	1001 - 1400	16" DIAMETER	18/12 DUCT	701 - 1000
18" DIAMETER	24/12 DUCT	1401 - 2000	18" DIAMETER	24/12 DUCT	1001 - 1300
20" DIAMETER	24/14 DUCT	2001 - 2500	20" DIAMETER	24/14 DUCT	1301 - 1800
22" DIAMETER	20/22 DUCT	2501 - 3200	22" DIAMETER	22/20 DUCT	1801 - 2300
24" DIAMETER	22/24 DUCT	3201 - 4200	24" DIAMETER	24/22 DUCT	2301 - 2800
			26" DIAMETER	24/24 DUCT	2801 - 3600
			28" DIAMETER	26/26 DUCT	3601 - 4200

ELECTRIC WALL HEATER SCHEDULE

DESIGNATION	SERVES	CAPACITY BTU/HR	TOTAL K.W.	VOLTAGE/PHASE	AMPS	MANUFACTURER	MODEL
EWH-1	RISER ROOM	10,235	3	208/1ø	14.4	QMARK	AWH4404

NOTES:
1. HEATERS ARE SHIPPED AT HIGHER WATTAGE; UNITS SHALL BE CONVERTED TO SPECIFIED WATTAGE IN THE FIELD.
2. HEATING ELEMENT SHALL BE ENCASED IN STEEL FINNED CASTING AND PROTECTED BY THERMAL SWITCH.
3. FAN MOTOR SHALL BE HEAVY DUTY ENCLOSED AND PERMANENTLY LUBRICATED.
4. FAN SHALL BE PRECISION BALANCED AND FAN-MOTOR ASSEMBLY MOUNTED TO BE VIBRATION FREE.
5. UNITS SHALL BE CONTROLLED AUTOMATICALLY BY INTEGRAL THERMOSTAT WHEN HEATER IS IN 'ON' POSITION.
6. HEATER SHALL HAVE BUILT-IN FAN DELAY.
7. FINISH: BAKED-ON ENAMEL.
8. UNIT SHALL BE RECESSED IN WALL.

SPLIT SYSTEM SCHEDULE

AIR HANDLING UNIT DESIGNATION	AHU-1	AHU-2	AHU-3	AHU-4	AHU-5	AHU-6
SUPPLY CFM	1800	1775	1200	1200	1400	1200
OUTSIDE AIR CFM	0	0	0	0	200	0
EXTERNAL S.P. ("W.G.)	0.4	0.4	0.4	0.4	0.4	0.4
MOTOR HP.	3/4	3/4	1/2	1/2	3/4	1/2
TOTAL CAPACITY (MBH)	54.03	54.03	37.82	37.82	41.20	37.82
SENSIBLE CAPACITY (MBH)	42.0	42.0	29.40	29.40	32.41	29.40
ENTERING AIR (DB/WB)'F	78/64	78/64	78/64	78/64	77/65	78/64
LEAVING AIR (DB/WB)'F	56/54	56/54	55/53	55/53	55/54	55/53
HEATER CAPACITY (KW)	10.0	10.0	8.0	8.0	8.0	8.0
STAGES	1	1	1	1	1	1
VOLTAGE/PHASE	208/1ø	208/1ø	208/1ø	208/1ø	208/1ø	208/1ø
MCA/MOCP	53.8/60	53.8/60	44.7/45	44.7/45	44.7/45	44.7/45
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL	FY4ANF-060	FY4ANF-060	FY4ANF-042	FY4ANF-042	FY4ANF-048	FY4ANF-042
UNIT WEIGHT (LBS)	200	200	150	150	170	150
CONDENSING UNIT DESIGNATION	ACCU-1	ACCU-2	ACCU-3	ACCU-4	ACCU-5	ACCU-6
CONDENSER AIR (DB)'F	98	98	98	98	94	98
VOLTAGE/PHASE	208/1ø	208/1ø	208/1ø	208/1ø	208/1ø	208/1ø
MCA/MOCP	34.2/50	34.2/50	23.5/40	23.5/40	26.2/40	23.5/40
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL	24ABA3-60	24ABA3-60	24ABA3-42	24ABA3-42	24ABA3-048	24ABA3-42
UNIT WEIGHT (LBS)	240	240	218	218	235	218
EFFICIENCY EER (SEER)	13.0	13.0	13.0	13.0	13.0	13.0
REMARKS	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8

REMARKS
1. PROVIDE WITH AUXILARY DRAIN PAN.
2. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT.
3. PROVIDE SINGLE POINT POWER.
4. PROVIDE 4-INCH CONCRETE PAD FOR CONDENSING UNIT. PAD SHALL EXTEND 6-INCHES BEYOND UNIT PERIMETER.
5. PROVIDE AND INSTALL REFRIGERANT LINES PER MANUFACTURER RECOMMENDATIONS.
6. CONDENSER COILS SHALL BE CORROSION RESISTANT.
7. PROVIDE WITH FILTER BASE WITH STANDARD SIZE FILTER (20"x20").
8. PROVIDE WITH SAFETY FLOAT SWITCH.

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
T	TEMPERATURE SENSOR		EXHAUST AIR DUCT
	SUPPLY AIR DEVICE (SEE SCHEDULE)		RETURN AIR DUCT
	RETURN/TRANSFER AIR DEVICE (SEE SCHEDULE)		SUPPLY AIR DUCT
	EXHAUST FAN (SEE SCHEDULE)	X/X	DUCT INTERNAL DIMENSIONS (WIDTH/DEPTH)
	RECTANGULAR DUCT TRANSITION		ROUND BRANCH DUCT WITH MANUAL BALANCING DAMPER
	ROUND FLEX DUCT		ROOF TOP UNIT (SEE SCHEDULE)
	AIR HANDLING UNIT (SEE SCHEDULE)	T	THERMOSTAT

EXHAUST FAN SCHEDULE

DESIGNATION	EF-1	EF-2	EF-3	EF-4	EF-5	EF-6	EF-7
EXHAUST CFM	100	100	100	600	300	100	100
EXTERNAL S.P. ("W.G.)	0.375	0.375	0.375	0.375	0.375	0.375	0.375
MOTOR HP.	41 WATTS	41 WATTS	41 WATTS	1/4	1/8	41 WATTS	41 WATTS
MOTOR RPM	965	965	965	1390	1272	965	965
DRIVE TYPE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
FAN TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
MOUNTING LOCATION	CEILING	CEILING	CEILING	ROOF	ROOF	CEILING	CEILING
SONES	2.0	2.0	2.0	7.6	5.8	2.0	2.0
VOLTAGE/PHASE	120/1ø	120/1ø	120/1ø	120/1ø	120/1ø	120/1ø	120/1ø
MANUFACTURER	COOK	COOK	COOK	COOK	COOK	COOK	COOK
MODEL	GC-148	GC-148	GC-148	100C15DH	90C15DH	GC-148	GC-148
UNIT WEIGHT (LBS)	12	12	12	25	22	12	12
REMARKS	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	1,2,3,4,7	1,2,3,4,7	1,2,3,4,6	1,2,3,4,6

REMARKS
1. PROVIDE WITH INTERNAL DISCONNECT.
2. PROVIDE WITH BACK DRAFT DAMPER.
3. PROVIDE WITH FAN SPEED CONTROL.
4. SWITCH WITH LIGHTS.
5. PROVIDE WITH ROOF CAP AND CURB.
6. PROVIDE WITH WALL CAP.
7. PROVIDE WITH ROOF CURB.

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PALMER PAVILION RENOVATION
Mc ALLEN, TEXAS USA

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JOB #:	2015-010
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DATE:	09.12.2016
DRAWN BY:	T.T.
CHECKED BY:	J.P.

STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED PROFESSIONAL ENGINEER
09.12.2016

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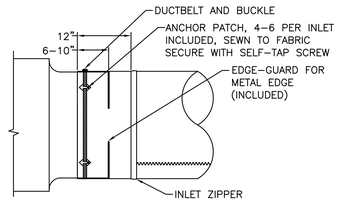
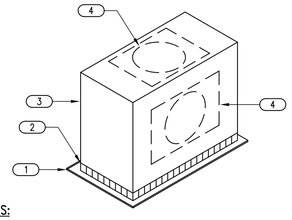
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

M2.01



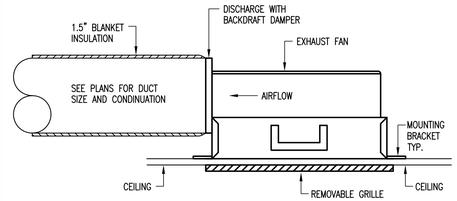
A **INLET ATTACHEMENT DETAIL**
VERTICL TYPE WITH ZIPPER AND OVERLAP (SCALE: NTS)



KEY NOTES:

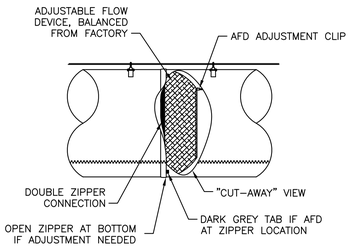
1. CEILING MOUNTED RETURN/EXHAUST AIR GRILLE. SEE PLANS AND SCHEDULE.
2. SECURE INTERNALLY LINED PLENUM TO AIR DEVICE.
3. PLENUM HEIGHT SHALL BE 12–INCHES MINIMUM WITH 1.5" INTERNAL LINING.
4. PROVIDE ROUND/SQUARE TAP CONNECTION AS REQUIRED.

B **RETURN/EXHAUST AIR DEVICE PLENUM**
SCALE: NTS

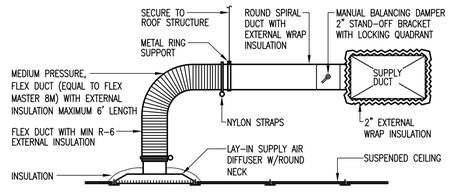


NOTE: INSTALL PER MANUFACTURER RECOMMENDATIONS

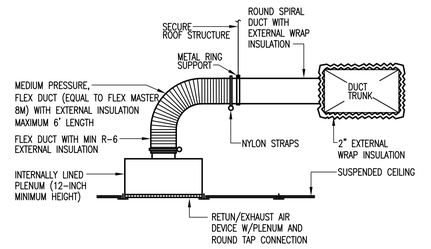
C **CEILING MOUNTED EXHAUST FAN**
NO SCALE



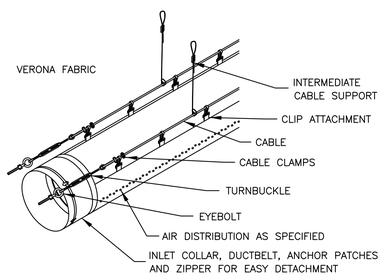
D **ADJUSTABLE FLOW DEVICE (AFD)**
INSTALLED AT ZIPPER LOCATION AT INLET OR AS SPECIFIED IN OTHER LOCATIONS. ZIPPER TO ZIPPER CONNECTION AS SHOWN. EXTERNAL LABEL IDENTIFIES LOCATION.



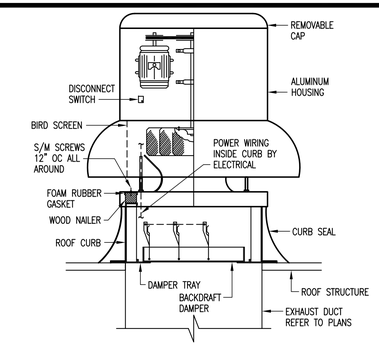
E **SUPPLY AIR DIFFUSER**
SCALE: N.T.S.



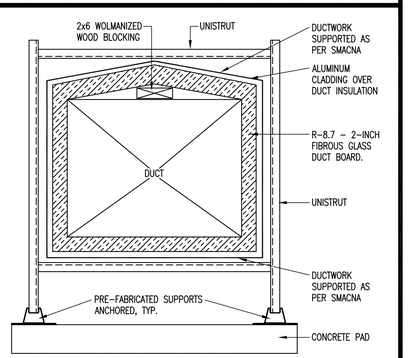
F **RETURN/EXHAUST AIR DEVICE**
SCALE: N.T.S.



G **SUSPENSION DETAIL**
2 ROW CABLE SUSPENSION AT 10&2 O'CLOCK



H **ROOF MOUNTED EXHAUST FAN**
SCALE: NTS



J **EXTERIOR DUCT DETAIL**
N.T.S.

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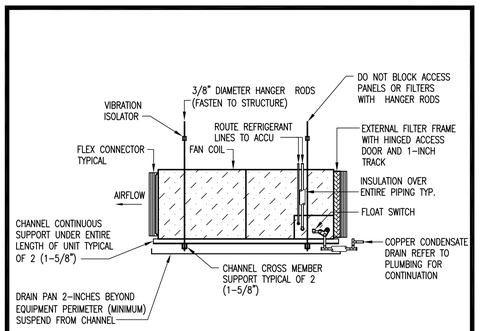
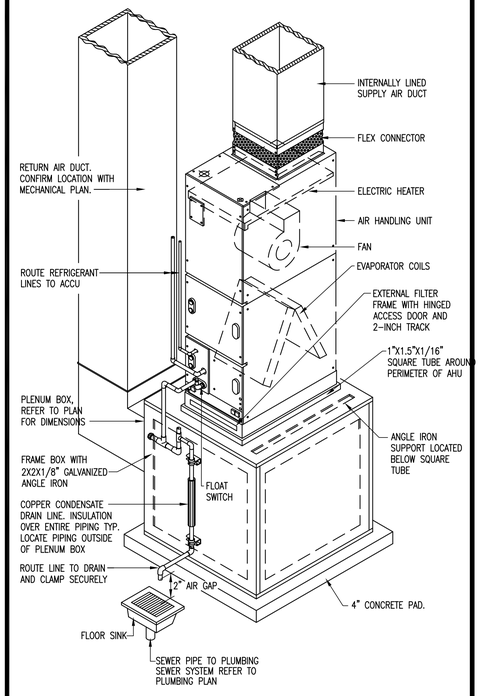
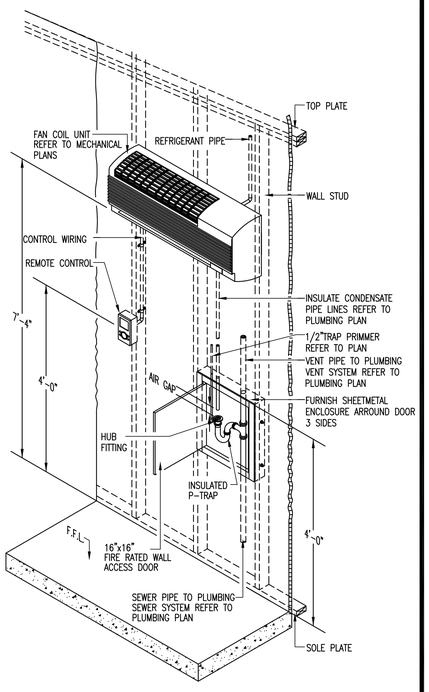
M3.01



A AIR HANDLING UNIT DETAIL
SCALE: N.T.S. HORIZONTAL/SUSPENDED



B AIR HANDLING UNIT DETAIL
SCALE: N.T.S. TYPICAL AHU



C FAN COIL INSTALLATION DETAIL
SCALE: N.T.S.

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M3.02

DEMOLITION KEY NOTES:

1. EXISTING ELECTRICAL METER AND TELEPHONE BOX TO BE REMOVED.
2. EXISTING LIGHT POLE TO REMAIN.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FEILD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECCESSARY FOR FEILD MODIFICATIONS DUE TO EXISTING CONDITIONS.

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BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

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F. SCHEDULE FOR ALL POWER OUTAGES SHALL BE APPROVED PRIOR TO DEMOLITION.

G. ON ANY WORK SHOWN ON M.E.P. DRAWINGS WHICH REQUIRES DEMOLITION OF BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT–APPROVED PATCHING MATERIALS.

H. CONTRACTOR AND OWNER SHALL BE FULLY RESPONSIBLE TO IDENTIFY ANY AND ALL ASBESTOS PRESENT IN THE BUILDING PRIOR TO DEMOLITION AS REQUIRED BY LAW.

I. COORDINATION AMONG OTHER CONSTRUCTION DISCIPLINES PRIOR TO DEMOLITION IS MANDATORY.

J. CONDUITS IN EXISTING WALLS MAY REMAIN. REMOVE CONDUCTORS AND CUT OF AT CLOSEST ACCESSIBLE POINT ABOVE CEILING.

K. ALL CIRCUITS REMOVED UNDER DEMOLITION SHALL BE LABELED AS SPARE.

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND BECOME FULLY INFORMED AS TO THE EXTENT OF WORK PRIOR TO BIDDING OR COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS

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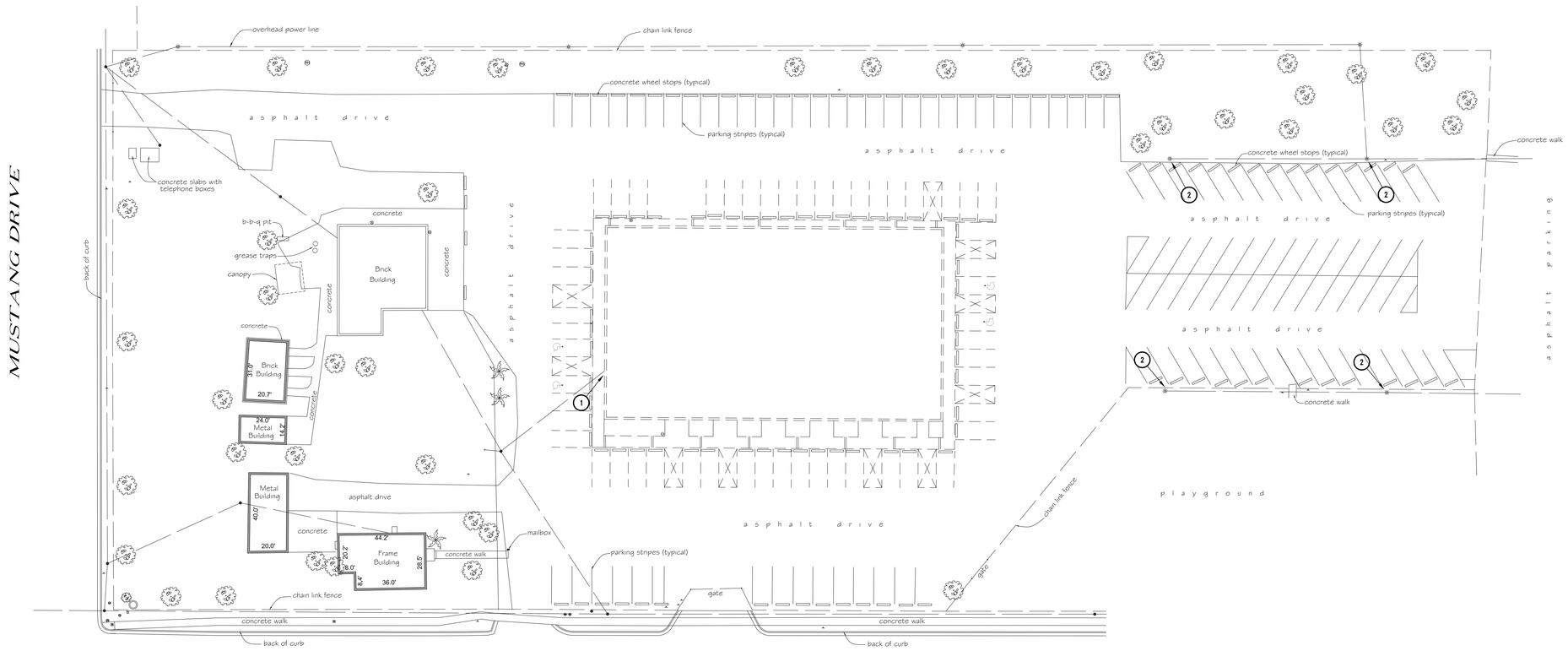
D. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE–DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS.

Hidalgo County Housing Authority - Memorial Apartments



DEMOLITION ELECTRICAL SITE PLAN

N

1" = 30'–0"

1

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USA

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STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
LICENSED PROFESSIONAL ENGINEER

09.12.2016

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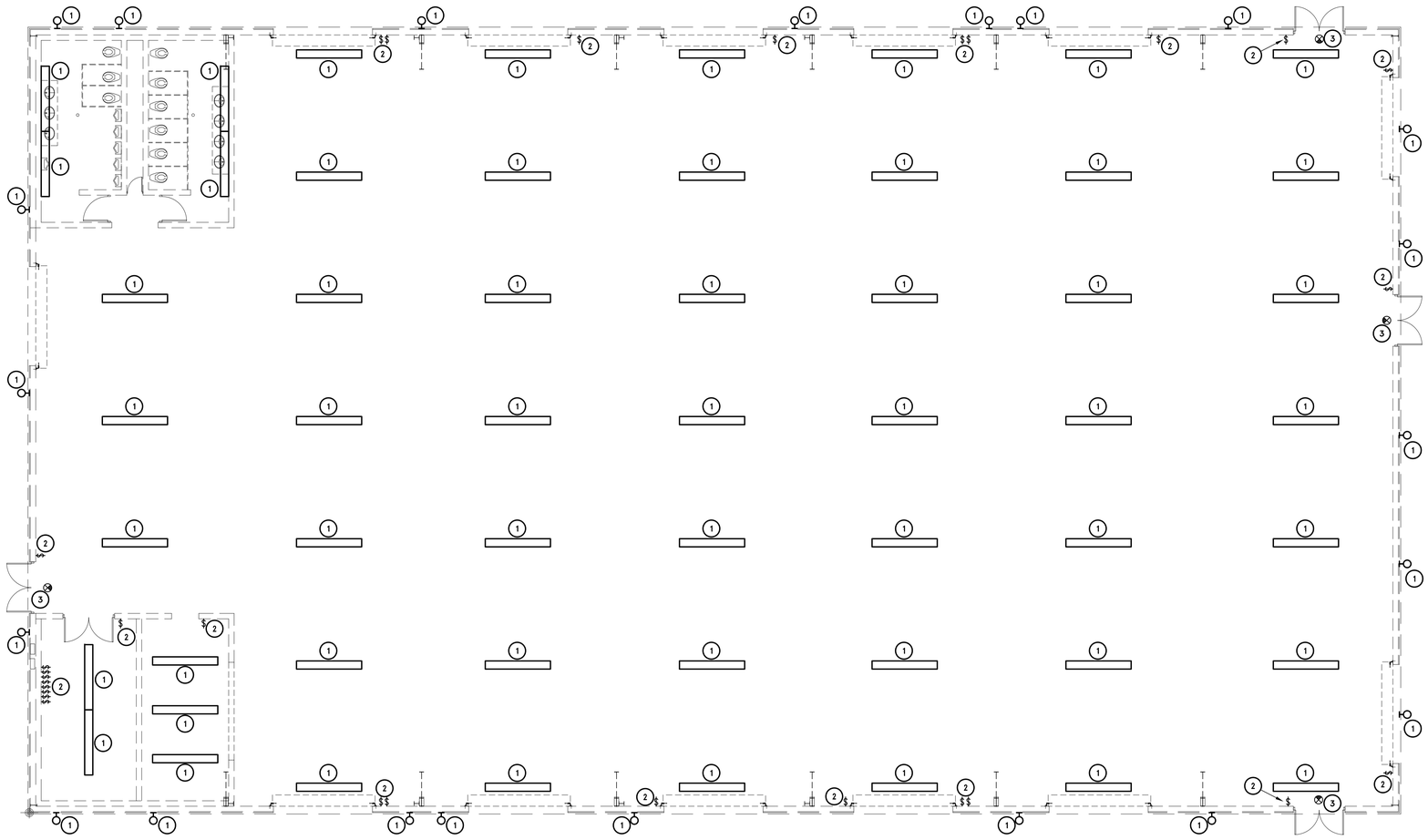
DE1.00



N

DEMOLITION ELECTRICAL LIGHTING FLOOR PLAN

1/8" = 1'-0"

1

GENERAL DEMOLITION NOTES:

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K. ALL CIRCUITS REMOVED UNDER DEMOLITION SHALL BE LABELED AS SPARE.

DEMOLITION KEY NOTES:

1. EXISTING LIGHTING FIXTURE TO BE REMOVED.
2. EXISTING WALL SWITCH OR SWITCHES TO BE REMOVED.
3. EXISTING EXIT SIGN TO BE REMOVED.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FEILD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECCESSARY FOR FEILD MODIFICATIONS DUE TO EXISTING CONDITIONS.

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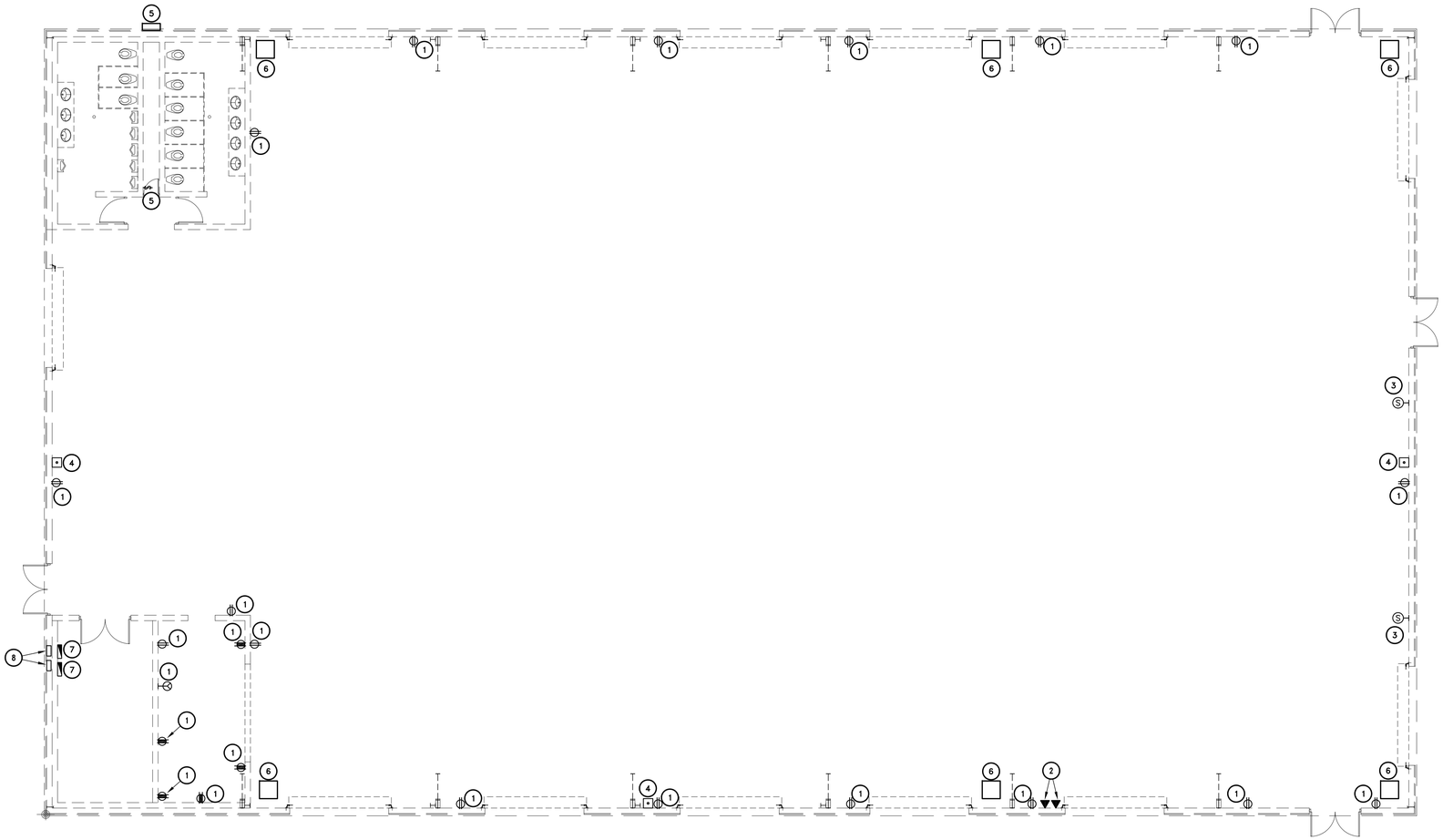

DEMOLITION ELECTRICAL POWER FLOOR PLAN

1/8" = 1'-0"

1

N

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E. CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

F. SCHEDULE FOR ALL POWER OUTAGES SHALL BE APPROVED PRIOR TO DEMOLITION.

G. ON ANY WORK SHOWN ON M.E.P. DRAWINGS WHICH REQUIRES DEMOLITION OF BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT-APPROVED PATCHING MATERIALS.

H. CONTRACTOR AND OWNER SHALL BE FULLY RESPONSIBLE TO IDENTIFY ANY AND ALL ASBESTOS PRESENT IN THE BUILDING PRIOR TO DEMOLITION AS REQUIRED BY LAW.

I. COORDINATION AMONG OTHER CONSTRUCTION DISCIPLINES PRIOR TO DEMOLITION IS MANDATORY.

J. CONDUITS IN EXISTING WALLS MAY REMAIN. REMOVE CONDUCTORS AND CUT OF AT CLOSEST ACCESSIBLE POINT ABOVE CEILING.

K. ALL CIRCUITS REMOVED UNDER DEMOLITION SHALL BE LABELED AS SPARE.

DEMOLITION KEY NOTES:

1. EXISTING RECEPTACLES TO BE REMOVED.
2. EXISTING TELEPHONE/DATA TO BE REMOVED.
3. EXISTING SPEAKER TO BE REMOVED.
4. EXISTING PUSH BUTTON TO BE REMOVED.
5. EXISTING EXHAUST FAN TO BE REMOVED AND ASSOCIATED ELECTRICAL TO BE REMOVED.
6. EXISTING GAS HEATER TO BE REMOVED AND ASSOCIATED ELECTRICAL TO BE REMOVED.
7. EXISTING ELECTRICAL PANEL TO BE REMOVED.
8. EXISTING ELECTRICAL METER AND TELEPHONE BOX TO BE REMOVED.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FEILD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECCESSARY FOR FEILD MODIFICATIONS DUE TO EXISTING CONDITIONS.

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BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

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09.12.2016

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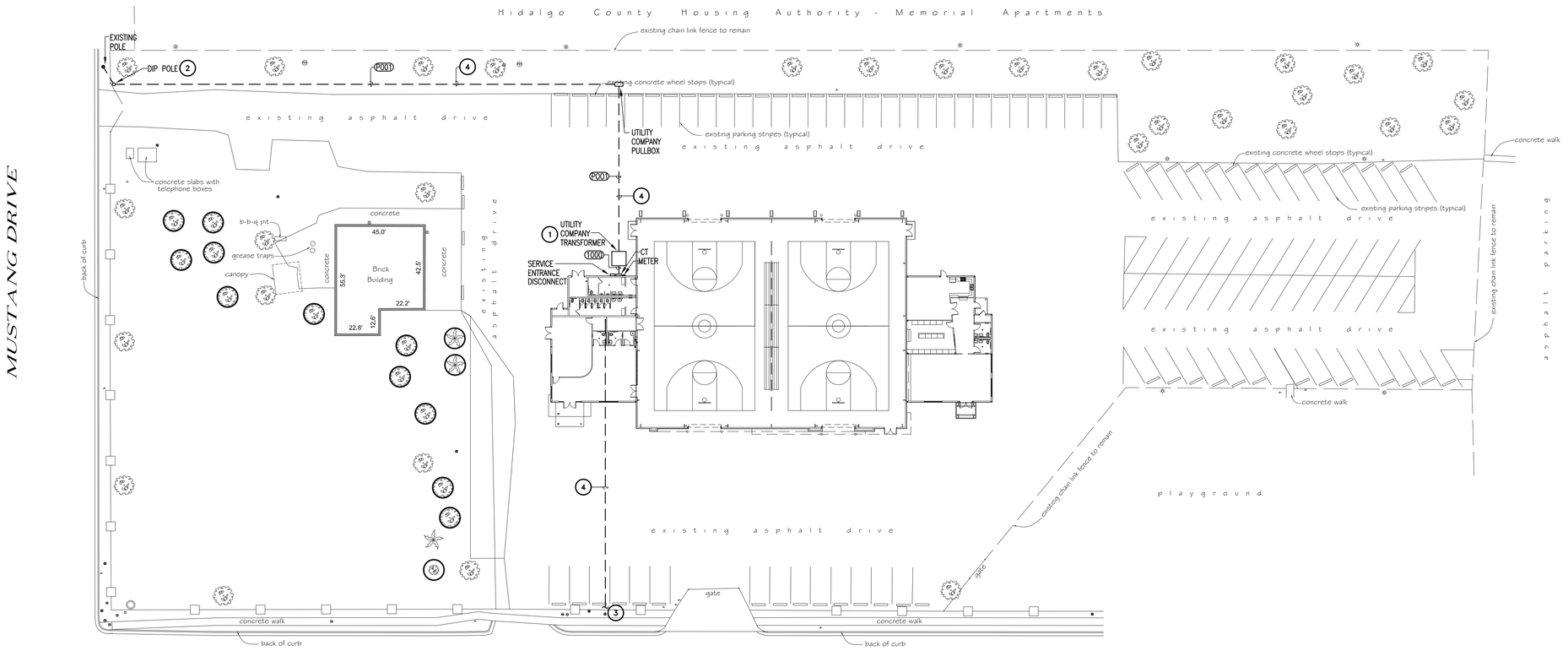
GENERAL NOTES: ( )

(A) INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING SITE SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPTANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.

KEYED NOTES:○

1. UTILITY COMPANY TRANSFORMER PER UTILITY COMPANY SPECIFICATIONS PAD BY ELECTRICAL CONTRACTOR.
2. COORDINATE FINAL ROUTING WITH UTILITY COMPANY.
3. ROUTE AS DIRECTED BY TELEPHONE/CABLE COMPANY.
4. CUT AND PATCH EXISTING ASPHALT AS REQUIRED.



N

ELECTRICAL SITE PLAN 1

1" = 30'-0"

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E1.00

GENERAL NOTES:

A. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN (RCP) FOR EXACT LOCATION OF LIGHT FIXTURES. FURNISH FIXTURES WITH TRIM COMPATIBLE WITH THE TYPE OF CEILING AS INDICATED ON THE RCP.

B. EXIT LIGHTS ARE TYPE X, UNO. CONNECT EXIT LIGHT FIXTURES TO UN-SWITCHED CIRCUIT SERVING SPACE IN WHICH FIXTURE IS INSTALLED. INSTALL WALL MOUNTED FIXTURES 8'-0" AFF, UNO.

C. COORDINATE PLACEMENT OF FIXTURES WITH ACTUAL INSTALLATION OF MECHANICAL EQUIPMENT AND DUCTWORK.

D. WHERE TWO LIGHT SWITCHES ARE SHOWN ADJACENT TO EACH OTHER, THE SWITCH NEAREST THE DOOR CONTROLS THE OUTER LAMPS IN ALL THE FIXTURES IN THE SPACE AND THE OTHER SWITCH CONTROLS THE INNER LAMPS IN ALL THE FIXTURES IN THE SPACE, UNO.

E. CIRCUIT EMERGENCY FIXTURES IN CLASSROOMS TO PERMIT ALL THE LAMPS TO BE SWITCHED OFF, LEAVING THE BATTERY IN STAND BY CONDITION, SO THE EMERGENCY BATTERY UNIT WILL OPERATE ONE LAMP WHEN THE NORMAL POWER IS INTERRUPTED. REQUEST THE REQUIRED WIRING DIAGRAM FROM EQUIPMENT MANUFACTURER. ALL EMERGENCY LIGHTING FIXTURES SHALL BE CIRCUITED TO THE NON-SWITCHED PHASE WIRE IN ADDITION TO THE SWITCHED LEG. ALL EXIT SIGNS SHALL BE CIRCUITED TO THE NON-SWITCHED PHASE WIRE ONLY

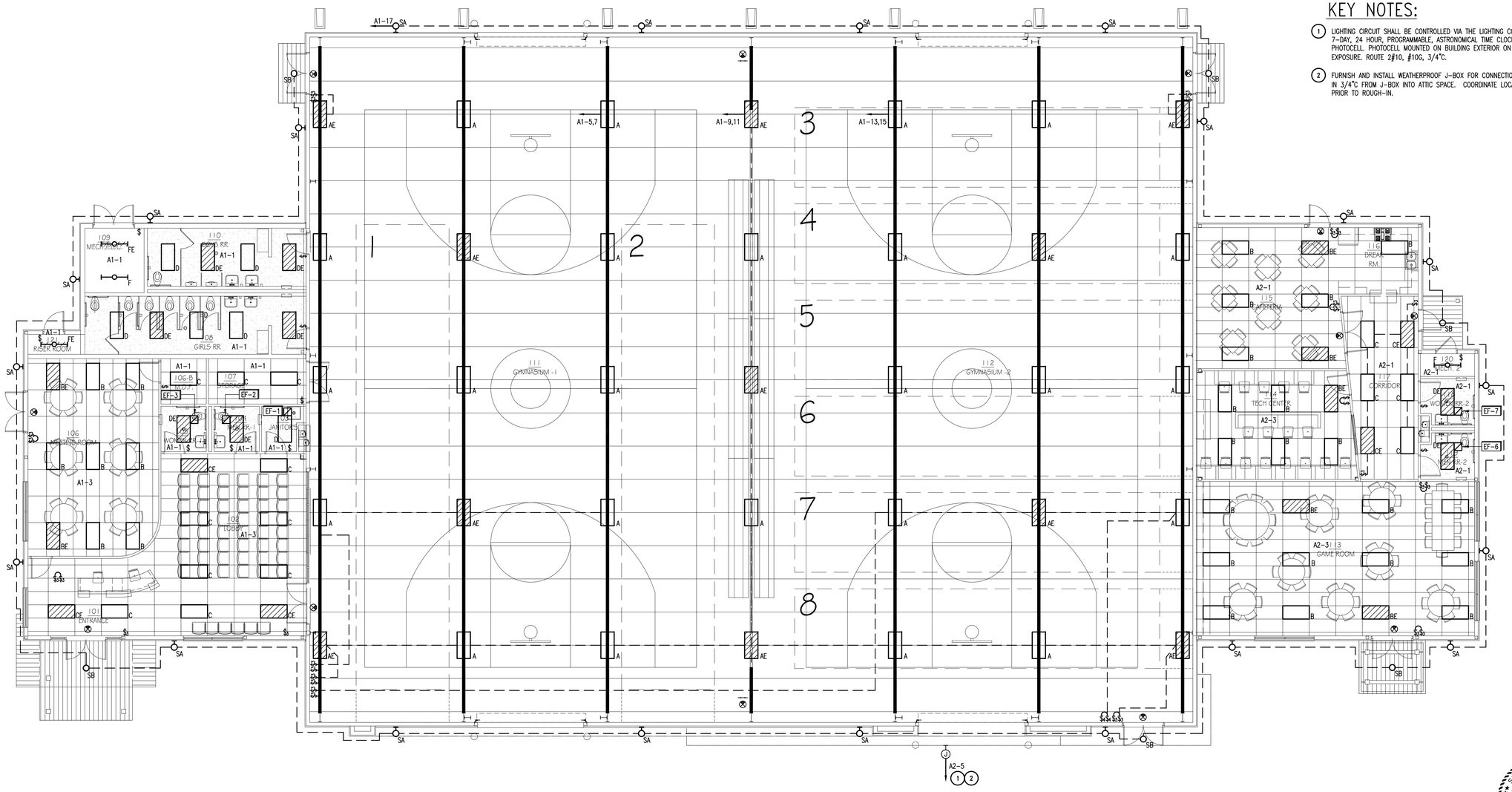
F. SWITCH LEGS ARE NOT SHOWN WHERE SWITCHING SCHEME IS OBVIOUS.

G. FIXTURES SHALL BE CIRCUITED TO CIRCUIT INDICATED IN SPACE, UNO.

KEY NOTES:

1. LIGHTING CIRCUIT SHALL BE CONTROLLED VIA THE LIGHTING CONTROLLER WITH A 7-DAY, 24 HOUR, PROGRAMMABLE, ASTRONOMICAL TIME CLOCK AND BY-PASS PHOTOCELL. PHOTOCELL MOUNTED ON BUILDING EXTERIOR ON NORTH WALL FACING EXPOSURE. ROUTE 2#10, #10G, 3/4"C.

2. FURNISH AND INSTALL WEATHERPROOF J-BOX FOR CONNECTION OF SIGNAGE. STUB IN 3/4"C FROM J-BOX INTO ATTIC SPACE. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN.



↑ N ELECTRICAL LIGHTING FLOOR PLAN 1

1/8" = 1'-0"

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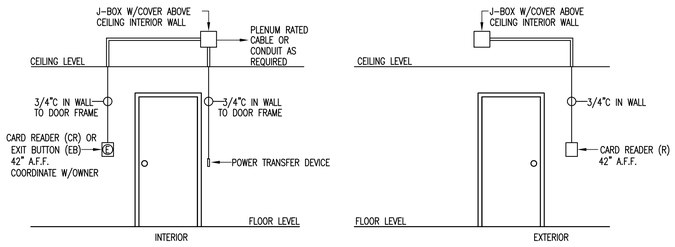

ELECTRICAL DOOR DETAIL 2

N.T.S.

LEGEND

D	DOOR CONTACT
MD	MOTION DETECTOR
G	GLASS BREAK
CR	CARD READER
ES	ELECTRIC STRIKE
EB	EGRESS BUTTON
ML	MAGLOCK
KP	ALARM KEYPAD
	ACCESS CONTROL PANEL

FIELD VERIFY ALL CONDITIONS

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GENERAL NOTES:

A. COORDINATE ROUGH-IN LOCATION OF ALL DEVICES WITH ARCHITECTURAL ELEVATIONS, DETAILS, AND PLANS.

B. ALL FIRE ALARM, INTERCOM, DATA, AND TV DEVICES SHALL BE STUBBED UP TO CABLE TRAY ABOVE ACCESSIBLE CEILING.

C. FURNISH, INSTALL AND CONNECT ELECTRICAL SERVICE LINES, WIRE AND WITHIN THE EQUIPMENT, INCLUDING REAGENT RACKS AND FUME HOODS. WORK TO BE COMPLETED THROUGH, UNDER OR ALONG BACK OF WORKING SURFACES AS REQUIRED. COMPLETE FINAL CONNECTION OF SERVICES.

D. INSTALL AND MAKE FINAL CONNECTIONS OF ELECTRICAL FIXTURES PROVIDED BY CASEWORK CONTRACTOR, INCLUDING ELECTRICAL FIXTURES IN FUME HOODS.

E. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL HAVE SOUND RETARDING /ABSORBING FIRE STOP MATERIAL.

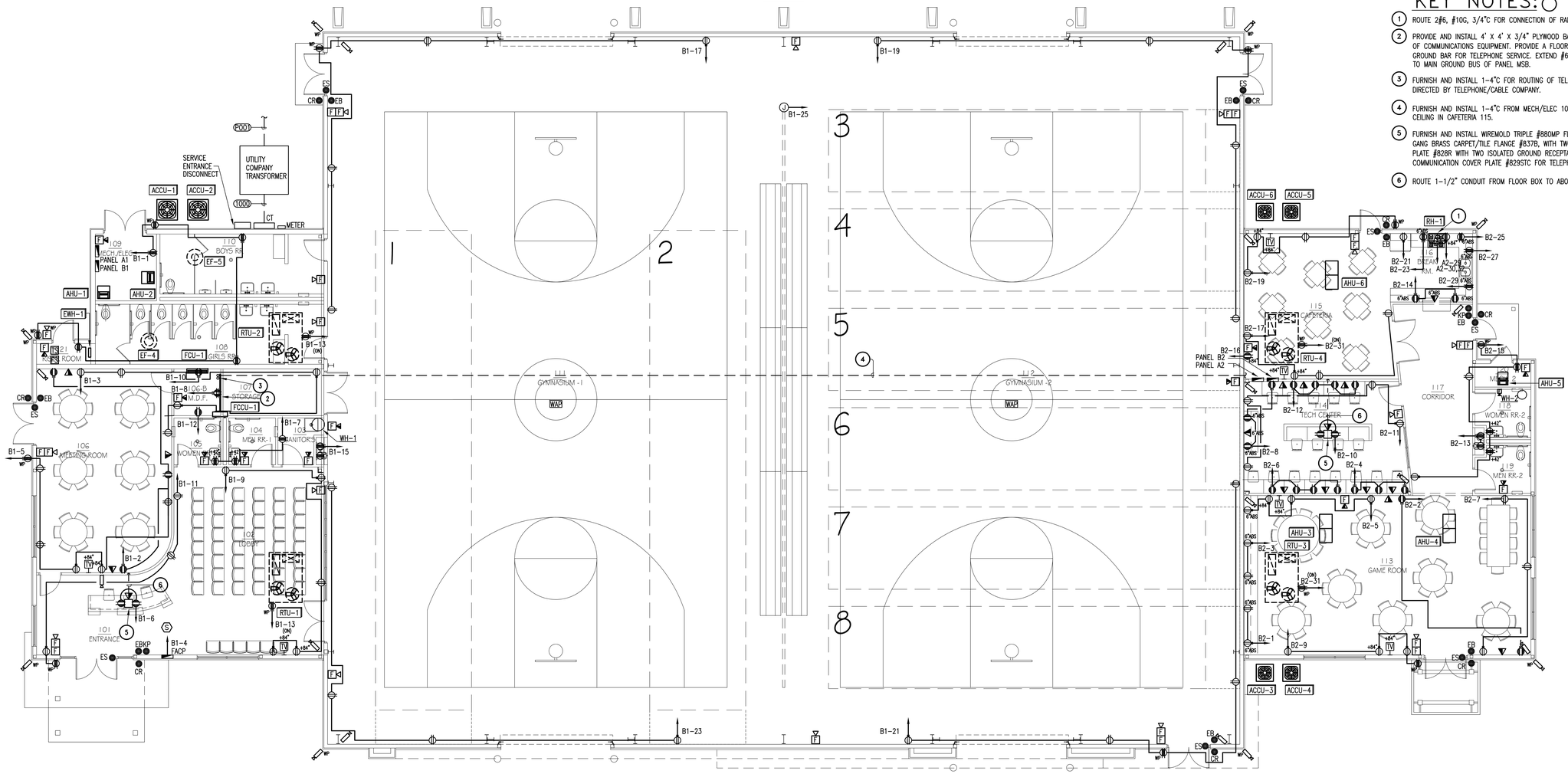
F. FURNISH AND INSTALL TV OUTLET AND TV RECEPTACLE IN SEPARATE BACKBOX AND WALL PLATE.

H. ALL WIRE IN THE GYMNASIUM SHALL BE ROUTED IN CONDUIT.

I. ALL EQUIPMENT AND DEVICES SHALL BE SUITABLE FOR GYMNASIUM APPLICATION. FURNISH AND INSTALL WIRE GUARDS AS REQUIRED.

KEY NOTES:

1. ROUTE 2#6, #10G, 3/4"C FOR CONNECTION OF RANGE.
2. PROVIDE AND INSTALL 4' X 4' X 3/4" PLYWOOD BACKBOARD FOR MOUNTING OF COMMUNICATIONS EQUIPMENT. PROVIDE A FLOOR MOUNTED 3/4" X 4' GROUND BAR FOR TELEPHONE SERVICE. EXTEND #6 AWG FROM GROUND BAR TO MAIN GROUND BUS OF PANEL MSB.
3. FURNISH AND INSTALL 1-4"C FOR ROUTING OF TELEPHONE/CABLE. ROUTE AS DIRECTED BY TELEPHONE/CABLE COMPANY.
4. FURNISH AND INSTALL 1-4"C FROM MECH/ELEC 109 TO ABOVE ACCESSIBLE CEILING IN CAFETERIA 115.
5. FURNISH AND INSTALL WIREMOLD TRIPLE #880MP FLOOR BOX WITH THREE GANG BRASS CARPET/TILE FLANGE #837B, WITH TWO BRASS DUPLEX COVER PLATE #828R WITH TWO ISOLATED GROUND RECEPTACLE, AND BRASS COMMUNICATION COVER PLATE #829STC FOR TELEPHONE/DATA OUTLET.
6. ROUTE 1-1/2" CONDUIT FROM FLOOR BOX TO ABOVE ACCESSIBLE CEILING.



ELECTRICAL POWER FLOOR PLAN 1

1/8" = 1'-0"

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ELECTRICAL LEGEND

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	2'x4' FLUORESCENT LIGHT FIXTURE	SEE FIX. SCH.
	2'x4' FLUORESCENT LIGHT FIXTURE ON EMERGENCY CIRCUIT	SEE FIX. SCH.
	2'x4' FLUORESCENT LIGHT FIXTURE SWITCHED W/ INBOARD LAMPS ONE SWITCH AND OUTBOARD LAMPS ON ANOTHER	SEE FIX. SCH.
	2'X4' FLUORESCENT FIXTURE W/INBOARD LAMPS ON EMERGENCY CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT	SEE FIX. SCH.
	2'x2' FLUORESCENT LIGHT FIXTURE	SEE FIX. SCH.
	2'x2' FLUORESCENT LIGHT FIXTURE ON EMERGENCY CIRCUIT	SEE FIX. SCH.
	FLUORESCENT STRIP LIGHT	SEE FIX. SCH.
	1'X4' FLUORESCENT LIGHT FIXTURE	SEE FIX. SCH.
	TRACK LIGHT	SEE FIX. SCH.
	INCANDESCENT, FLUORESCENT, OR HID WALL WASHER LIGHT FIXTURE CEILING MTD.	SEE FIX. SCH.
	INCANDESCENT, FLUORESCENT, OR HID FIXTURE CLG. OR WALL MTD.	SEE FIX. SCH.
	INCANDESCENT, FLUORESCENT, OR HID FIXTURE ON EMERGENCY CCT. CLG. OR WALL MTD.	SEE FIX. SCH.
	EXIT LIGHT, CEILING OR WALL MOUNTED – SHADING INDICATING SINGLE OR DOUBLE FACE; DIRECTIONAL ARROWS AS INDICATED	9" BFC
$	WALL SWITCH SPST, 20A,120/277V	48" AFF
$ 2	DOUBLE POLE TOGGLE SWITCH, 20A/120/277V	48" AFF
$ 3	3–WAY WALL SWITCH, 20A,120/277V	48" AFF
$ 4	4–WAY WALL SWITCH, 20A,120/277V	48" AFF
$ D	WALL DIMMER SWITCH	48" AFF
$ K	KEY OPERATED WALL SWITCH	48" AFF
$ P	WALL SWITCH WITH PILOT LIGHT	48" AFF
	SINGLE RECEPTACLE – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	DUPLEX RECEPTACLE – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	DUPLEX RCPT. SPLIT–WIRED – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	DUPLEX RCPT. GFI – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE)	15" AFF
	ISOLATED GROUND DUPLEX RECEPTACLE – 20A/125V NEMA 5–20R	15" AFF
E	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT	15" AFF
	FLOOR MOUNTED DUPLEX RECEPTACLE – FLUSH MOUNTED UNO	–
	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)	15" AFF
J	JUNCTION BOX – SIZE & MOUNTING AS REQUIRED	AS REQD.
	MULTIOUTLET ASSEMBLY – LENGTH AND OUTLET SPACING AS INDICATED	AS NOTED
	TELEPHONE/DATA OUTLET. WALL MOUNTED – STUB 1" C. ABOVE CEILING FROM OUTLET BOX	15" AFF
	FLOOR MOUNTED DATA/TELEPHONE OUTLET – FLUSH MOUNTED UNO	–
TV	TELEVISION OUTLET. CLG. OR WALL MOUNTED – STUB 3/4" C. ABOVE CEILING FROM OUTLET BOX	15" AFF
	PUSHBUTTON	48" AFF
C	CLOCK HANGER OUTLET 15A/125V/2P/3W/G RECEPTACLE	96" AFF
WAP	WIRELESS ACCESS PIONT	–
F	FIRE ALARM PULL STATION	48" AFF
F	FIRE ALARM AUDIBLE/VISUAL SIGNAL	80" AFF
F	FIRE ALARM AUDIBLE SIGNAL	80" AFF
F	FIRE ALARM VISUAL SIGNAL	80" AFF
S	SPEAKER VOICE EVAC SYSTEM	80" AFF
EVAC	VOICE EVAC SYSTEM	–

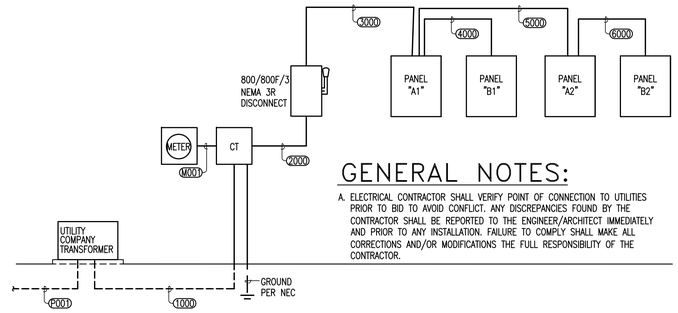
SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
FS	FIRE ALARM SPRINKLER FLOW SWITCH	–
TS	FIRE ALARM SPRINKLER TAMPER SWITCH	–
TS	FIRE ALARM SPRINKLER TAMPER SWITCH	–
PS	FIRE ALARM SPRINKLER PRESSURE SWITCH	–
S S	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED	80" AFF
H H	HEAT DETECTOR CEILING OR WALL MOUNTED	–
D	DUCT SMOKE DETECTOR	–
	SMOKE DOOR HOLDER	–
FACP	FIRE ALARM CONTROL PANEL	–
FAAP	FIRE ALARM ANNUNCIATOR PANEL	–
S S	P.A. SPEAKER, CEILING OR WALL MOUNTED	9" BFC
M	MICROPHONE OUTLET	–
30/–/3	DISCONNECT SWITCH – 30/–/3 INDICATES 30A, 3–POLE, NONFUSED; 30/30/3 INDICATES 30A, 3–POLE, 30A FUSE	AS REQD.
CB 30/3	CIRCUIT BREAKER DISCONNECT SWITCH – THERMAL MAGNETIC CB IN NEMA 1 ENCL; AMPS/POLES AS INDICATED	AS REQD.
30/30/3	DISCONNECT SWITCH – 30/30/3 INDICATES 30A, 3–POLE, 30A FUSE	AS REQD.
2	MOTOR STARTER FVNR UNO; NUMBER INDICATES NEMA SIZE	AS REQD.
CB	COMBINATION MOTOR CONTROLLER/DISCONNECT SWITCH	AS REQD.
	MOTOR	–
	PANELBOARD	–
	CIRCUIT HOME RUN TO PANELBOARD (2 #12, 1 #12G, 1/2"C. 20A/1P CB UNO)	–
X,X,X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	–
X/X/X	MULTI–POLE DEVICE CIRCUIT NUMBERS	–
MD MD	MOTION DETECTOR, CEILING OR WALL MOUNTED	–
DH	DOOR HOLDER– REFER TO ARCHITECTURAL DOOR SCHEDULE FOR DOOR ROUGH–IN REQUIREMENTS.	–
C	CHIME/STROBE	80"AFF
B	BELL/BUZZ	48"AFF
G	GLASS BREAK MOTION SENSOR	–
D	DOOR CONTACTS	–
K	KEYPAD	48"AFF
	CAMERA	–
CR	CARD READER – REFER TO DISCRIPTION IN DOOR HARDWARE SPECIFICATION SECTION.	48"AFF

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	NL	NIGHT LIGHT
BFC	BELOW FINISHED CEILING	NO (N.O.)	NORMALLY OPEN
C	CONDUIT	RCPT(S)	RECEPTACLE(S)
CB	CIRCUIT BREAKER	PNL	PANEL
EC	EMPTY CONDUIT	SO (S.O.)	SPACE ONLY
EX	EXISTING	SP	SPARE
F	FUSE	ST (S.T.)	SHUNT TRIP
G	GROUND (EQUIPMENT)	SW	SWITCH
GFI	GROUND FAULT INTERRUPTER	UF	UNDERFLOOR
IC	INTERRUPTING CAPACITY	UG	UNDERGROUND
IG	ISOLATED GROUND	UNO(U.N.O.)	UNLESS NOTED OTHERWISE
MTD	MOUNT OR MOUNTED	WG	WIRE GUARD
NC (N.C.)	NORMALLY CLOSED	WP	WEATHERPROOF
NF	NONFUSED	XFMR	TRANSFORMER
NIC	NOT IN CONTRACT		

NOTES:
1. 48" AFF INDICATES TO TOP OF DEVICE;
   15" AFF INDICATES TO BOTTOM OF DEVICE;
   ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

ELECTRICAL LEGEND 1
N.T.S.



GENERAL NOTES:

A. ELECTRICAL CONTRACTOR SHALL VERIFY POINT OF CONNECTION TO UTILITIES PRIOR TO BID TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

ELECTRICAL RISER DIAGRAM 2
N.T.S.

FEEDER / BRANCH CIRCUIT SCHEDULE

MARK	RACEWAY	PHASE CONDUCTORS	NEUTRAL CONDUCTORS	GROUND CONDUCTORS	REMARKS
P001	4"	----	----	----	----
M001	1–1/4"	----	----	----	----
1000	3"	3–600KCMIL	1–600KCMIL	1#1/0	TWO PARALLEL FEEDERS REQUIRED
2000	3"	3–600KCMIL	1–600KCMIL	1#1/0	TWO PARALLEL FEEDERS REQUIRED
3000	3"	3–600KCMIL	1–600KCMIL	1#1/0	TWO PARALLEL FEEDERS REQUIRED
4000	1 1/2"	3#2	1#3/0	1#8	----
5000	2"	3#3/0	1#3/0	1#3	TWO PARALLEL FEEDERS REQUIRED
6000	1 1/2"	3#2	1#3/0	1#8	----

ELECTRICAL FEEDER/BRANCH CIRCUIT SCHEDULE 3
N.T.S.

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09.12.2016

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
600 E. BEAUMONT AVE. SUITE 2 McALLEN, TX 78501 (956) 664-2727
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

E2.01

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER & MODEL #	LAMPS/TEMP/VA	VOLTAGE	REMARKS
A	4' LED HIGH BAY MEDIUM DISTRIBUTION ELECTRONIC BALLAST	LITHONIA #IBH 24000L MD MVOLT	LED 221	120/277	1
AE	4' FLUORESCENT HIGH BAY MEDIUM DISTRIBUTION EMERGENCY BATTERY PACK	LITHONIA #IBH 24000L MD MVOLT BSL20HV	LED 221	120/277	1
B	2X4 LAY-IN TROFFER #12 PATTERN ACRYLIC 0.125" THICK ELECTRONIC BALLAST	LITHONIA #2GT 3 32 A12125 MVOLT GEB10IS	3-F32T8 3500K 88	120/277	1
BE	2X4 LAY-IN TROFFER #12 PATTERN ACRYLIC 0.125" THICK EMERGENCY BATTERY PACK	LITHONIA #2GT 3 32 A12125 MVOLT GEB10IS EL15	3-F32T8 3500K 88	120/277	1
C	2X4 LAY-IN TROFFER #12 PATTERN ACRYLIC 0.125" THICK ELECTRONIC BALLAST	LITHONIA #2GT 2 32 A12125 MVOLT GEB10IS	2-F32T8 3500K 58	120/277	
CE	2X4 LAY-IN TROFFER #12 PATTERN ACRYLIC 0.125" THICK EMERGENCY BATTERY PACK	LITHONIA #2GT 2 32 A12125 MVOLT GEB10IS EL14	2-F32T8 3500K 58	120/277	
D	2X4 LAY-IN TROFFER #12 PATTERN ACRYLIC 0.125" THICK, GIRD ADAPTER	LITHONIA #2GT 2 32 A12125 MVOLT GEB10IS DGA24	2-F32T8 3500K 58	120/277	
DE	2X4 LAY-IN TROFFER #12 PATTERN ACRYLIC 0.125" THICK, GIRD ADAPTER EMERGENCY BATTERY PACK	LITHONIA #2GT 2 32 A12125 MVOLT GEB10IS EL14 DGA24	2-F32T8 3500K 58	120/277	
F	4' LONG OPEN STRIP WITH WIRE GUARD	LITHONIA #C232MVOLTGEB10ISWGCUN COLUMBIA # CS4-232-EU-CSWG4' METALUX # SS-232-UNV-EB81-U/ WG/SS-4FT-B	2-F32T8 3500K 58	120/277	
FE	4' LONG OPEN STRIP WITH WIRE GUARD EMERGENCY BATTERY PACK	LITHONIA #C232MVOLTGEB10ISWGCUN EL14	2-F32T8 3500K 58	120/277	
SA	ARCHITECTURAL WALL SCONCE	LITHONIA #WST 2 10A700/40K SR3 MVOLT	LED 4000K 53	120/277	
SB	6" ENCLOSED CYLINDER CLEAR TRIM, MEDIUM WIDE DISTRIBUTION	GOTHAM #EVO CYL 40/10 6AR MWD LSS MVOLT	LED 4000K 10	120/277	
X	UNIVERSAL COMBINATION EXIT LIGHT WITH BATTERY PACK	LITHONIA #LHQM LED R HO SD	LED'S FURNISHED 2	120/277	

REMARKS:
1. LIGHT FIXTURES SHALL BE FURNISHED WITH DUAL BALLAST WHERE TWO SWITCHES INDICATED ON PLAN.

ELECTRICAL LIGHTING FIXTURE SCHEDULE **2**
N.T.S.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

MECHANICAL EQUIPMENT				DISCONNECTING MEANS AND/OR
UNIT DESIGNATION	CIRCUIT DESIGNATION	LOCATION	NOTES	BRANCH CIRCUIT SIZE
RTU-1	A1-2,4,6	ROOF	1	100/-/3 NEMA 3R DISCONNECT, 3#3, #8G, 1-1/4"C
RTU-2	A1-8,10,12	ROOF	1	100/-/3 NEMA 3R DISCONNECT, 3#3, #8G, 1-1/4"C
RTU-3	A2-2,4,6	ROOF	1	100/-/3 NEMA 3R DISCONNECT, 3#3, #8G, 1-1/4"C
RTU-4	A2-8,10,12	ROOF	1	100/-/3 NEMA 3R DISCONNECT, 3#3, #8G, 1-1/4"C
AHU-1	A1-14,16	MECH/ELEC 109	1	60/-/2 DISCONNECT, 2#6, #10G, 3/4"C
AHU-2	A1-18,20	MECH/ELEC 109	1	60/-/2 DISCONNECT, 2#6, #10G, 3/4"C
AHU-3	A2-14,16	GAME ROOM 113	1	60/-/2 DISCONNECT, 2#6, #10G, 3/4"C
AHU-4	A2-18,20	GAME ROOM 113	1	60/-/2 DISCONNECT, 2#6, #10G, 3/4"C
AHU-5	A2-22,24	MECH 2 120	1	60/-/2 DISCONNECT, 2#6, #10G, 3/4"C
AHU-6	A2-26,28	CAFETERIA 115	1	60/-/2 DISCONNECT, 2#6, #10G, 3/4"C
ACCU-1	A1-22,24	EXTERIOR		60/-/2 NEMA 3R DISCONNECT, 2#6, #10G, 3/4"C
ACCU-2	A1-26,28	EXTERIOR		60/-/2 NEMA 3R DISCONNECT, 2#6, #10G, 3/4"C
ACCU-3	A2-13,15	EXTERIOR		60/-/2 NEMA 3R DISCONNECT, 2#8, #10G, 3/4"C
ACCU-4	A2-17,19	EXTERIOR		60/-/2 NEMA 3R DISCONNECT, 2#8, #10G, 3/4"C
ACCU-5	A2-21,23	EXTERIOR		60/-/2 NEMA 3R DISCONNECT, 2#8, #10G, 3/4"C
ACCU-6	A2-25,27	EXTERIOR		60/-/2 NEMA 3R DISCONNECT, 2#8, #10G, 3/4"C
EF-1	A1-1	JANITORS 103	2	2#12, #12G, 1/2"C
EF-2	A1-1	MEN RR-1	2	2#12, #12G, 1/2"C
EF-3	A1-1	WOMEN RR-1	2	2#12, #12G, 1/2"C
EF-4	A1-19	BOYS 110	2	2#12, #12G, 1/2"C
EF-5	A1-19	BOYS 110	2	2#12, #12G, 1/2"C
EF-6	A2-1	MEN RR-2	2	2#12, #12G, 1/2"C
EF-7	A2-1	WOMEN RR-2	2	2#12, #12G, 1/2"C
EWH-1	A1-34,36	RISER ROOM 121		30/-/2 DISCONNECT, 2#10, #10G, 1/2"C
RHEF-1	A2-29	BREAK RM 116		2#12, #12G, 1/2"C
WH-1	A1-34,36	JANITORS 103		30/-/2 DISCONNECT, 2#10, #10G, 1/2"C
WH-2	A2-34,36	WOMENS 118		30/-/2 DISCONNECT, 2#10, #10G, 1/2"C
FCU-1/FCCU-1	A1-21,23	MDF 106B	3	30/-/2 NEMA 3R DISCONNECT, 2#10, #10G, 1/2"C

A. ALL DISCONNECTS AND COMBINATION STARTERS ARE NEMA 1 ENCLOSED, UNO.

NOTES:
1. FURNISH AND INSTALL DUCT SMOKE DETECTOR AT SUPPLY & RETURN DUCT. FURNISH AND INSTALL RELAY FOR SHUT DOWN CONTROL.
2. EXHAUST FAN SHALL BE SWITCHED WITH LIGHTS.
3. FURNISH AND INSTALL MOTOR RATED SWITCH ABOVE ACCESSIBLE CEILING FOR FCU. FEED THRU FCCU.

ELECTRICAL-MECHANICAL EQUIPMENT CONNECTION SCHEDULE **1**
N.T.S.

STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
LICENSED
PROFESSIONAL ENGINEER
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PALMER PAVILION RENOVATION
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JOB #:	2015-010
PHASE:	100% CD
DATE:	09.12.2016
DRAWN BY:	M.G.
CHECKED BY:	A.D.

E3.01

PANELBOARD A1

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
800 A MAIN LUGS ONLY — MOUNTING: SURFACE
BUSES: MAIN – 800 A; NEUTRAL – 100%; EQUIPMENT GROUND; ISOLATED GROUND — Isc = 22,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
986		123	LIGHTING/EF-1,2,3	20/1	1	A	2	90/3	RTU-1			8627
1372			LIGHTING	20/1	3	B	4	–	*			8627
1326			LIGHTING	20/2	5	C	6	–	*			8627
1326			*		7	A	8	90/3	RTU-2			8627
1215.5			LIGHTING	20/2	9	B	10	–	*			8627
1215.5			*	–	11	C	12	–	*			8627
1326			LIGHTING	20/2	13	A	14	60/2	AHU-1			4476
1326			*	–	15	B	16	–	*			4476
1173			EXTERIOR LIGHTING	20/1	17	C	18	60/2	AHU-2			4476
		1047	EF-4,5	20/1	19	A	20	–	*			4476
		1140	FCU-1/FCCU-1	20/2	21	B	22	50/2	ACCU-1*			
		1140	*	20/1	23	C	24	–	*			
			SPACE	20/1	25	A	26	50/2	ACCU-2*			
			SPACE	20/1	27	B	28	–	*			
			SPACE	20/1	29	C	30	20/2	EWH-1			1498
			SPACE	20/1	31	A	32	–	*			1498
			SPACE	20/1	33	B	34	30/2	WH-1			2250
			SPACE	20/1	35	C	36	–	*			2250
	3420	1360	PANEL B1	100/3	37	A	38	400/3	PANEL A2	1138	3240	34393
	2520	2560		–	39	B	40	–	*	1584	3420	33061
	3780	1000		–	41	C	42	–	*		3600	33842

*=NONCOINCIDENTAL LOAD

VA:L (LIGHTING)	13988	CONNECTED	17485	DEMAND
VA:R (RECEPTACLES)	19980	CONNECTED	14990	DEMAND
VA:O (OTHER)	186828	CONNECTED	186828	DEMAND
VA: TOTAL	220796	CONNECTED	219303	DEMAND
AMPS: TOTAL	613	CONNECTED	609	DEMAND

L	R	O	TOTAL		
4776	6660	64627	VA CONNECTED TO A PHASE	76063 VA =	634 AMPS CONNECTED TO A PHASE @ 120 VOLTS
5498	5940	60741	VA CONNECTED TO B PHASE	72179 VA =	601 AMPS CONNECTED TO B PHASE @ 120 VOLTS
3715	7380	61460	VA CONNECTED TO C PHASE	72555 VA =	605 AMPS CONNECTED TO C PHASE @ 120 VOLTS
13988	19980	186828	TOTAL	220796 VA	

PANELBOARD B1

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
100A MAIN LUGS ONLY — MOUNTING: SURFACE
BUSES: MAIN – 100 A; NEUTRAL – 200%; EQUIPMENT GROUND; ISOLATED GROUND; SPD PANELBOARD — Isc = 10,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
	1080		RECEPTACLES	20/1	1	A	2	20/1	COMPUTERS		540	
	900		RECEPTACLES	20/1	3	B	4	20/1	FACP			360
	1080		RECEPTACLES	20/1	5	C	6	20/1	COMPUTERS		360	
	540		RECEPTACLES	20/1	7	A	8	20/1	MDF			360
	900		RECEPTACLES	20/1	9	B	10	20/1	MDF			1000
	720		RECEPTACLES	20/1	11	C	12	20/1	MDF			1000
	360		RECEPTACLES	20/1	13	A	14	20/1	SPARE			
		1200	EWC	20/1	15	B	16	20/1	SPARE			
	900		RECEPTACLES	20/1	17	C	18	20/1	SPARE			
	900		RECEPTACLES	20/1	19	A	20	20/1	SPARE			
	720		RECEPTACLES	20/1	21	B	22	20/1	SPARE			
	720		RECEPTACLES	20/1	23	C	24	20/1	SPARE			
		1000	ROLL UP DIVDER	20/1	25	A	26	20/1	SPACE			
			SPACE	20/1	27	B	28	20/1	SPACE			
			SPACE	20/1	29	C	30	20/1	SPACE			
			SPACE	20/1	31	A	32	20/1	SPACE			
			SPACE	20/1	33	B	34	20/1	SPACE			
			SPACE	20/1	35	C	36	20/1	SPACE			
			SPACE	20/1	37	A	38	30/3	SURGE PROTECTIVE DEVICE			
			SPACE	20/1	39	B	40	–	(INTERNAL)			
			SPACE	20/1	41	C	42	–	*			

VA:L (LIGHTING)		CONNECTED		DEMAND
VA:R (RECEPTACLES)	9720	CONNECTED	9720	DEMAND
VA:O (OTHER)	4920	CONNECTED	4920	DEMAND
VA: TOTAL	14640	CONNECTED	14640	DEMAND
AMPS: TOTAL	41	CONNECTED	41	DEMAND

L	R	O	TOTAL		
	3420	1360	VA CONNECTED TO A PHASE	4780 VA =	40 AMPS CONNECTED TO A PHASE @ 120 VOLTS
	2520	2560	VA CONNECTED TO B PHASE	5080 VA =	42 AMPS CONNECTED TO B PHASE @ 120 VOLTS
	3780	1000	VA CONNECTED TO C PHASE	4780 VA =	40 AMPS CONNECTED TO C PHASE @ 120 VOLTS
	9720	4920	TOTAL	14640 VA	

PANELBOARD A2

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
400 A MAIN LUGS ONLY — MOUNTING: RECESSED
BUSES: MAIN – 400 A; NEUTRAL – 100%; EQUIPMENT GROUND; ISOLATED GROUND — Isc = 10,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
1138		82	LIGHTING/EF-6,7	20/1	1	A	2	90/3	RTU-3			8627
1584			LIGHTING	20/1	3	B	4	–	*			8627
		1200	SINAGE	20/1	5	C	6	–	*			8627
			SPACE	20/1	7	A	8	90/3	RTU-4			8627
			SPACE	20/1	9	B	10	–	*			8627
			SPACE	20/1	11	C	12	–	*			8627
			ACCU-3*	40/2	13	A	14	45/2	AHU-3			3719
			*	–	15	B	16	–	*			3719
			ACCU-4*	40/2	17	C	18	45/2	AHU-4			3719
			*	–	19	A	20	–	*			3719
			ACCU-5*	40/2	21	B	22	45/2	AHU-5			3719
			*		23	C	24	–	*			3719
			ACCU-6*	40/2	25	A	26	45/2	AHU-6			3719
			*	–	27	B	28	–	*			3719
		500	RHEF-1	20/1	29	C	30	50/2	RANGE			4200
				20/1	31	A	32	–	*			4200
				20/1	33	B	34	20/2	WH-2			2250
				20/1	35	C	36	–	*			2250
				20/1	37	A	38	100/3	PANEL B2		3240	1700
				20/1	39	B	40	–	*		3420	2400
				20/1	41	C	42	–	*		3600	1000

*=NONCOINCIDENTAL LOAD

VA:L (LIGHTING)	2722	CONNECTED	3403	DEMAND
VA:R (RECEPTACLES)	10260	CONNECTED	10130	DEMAND
VA:O (OTHER)	101296	CONNECTED	101296	DEMAND
VA: TOTAL	114278	CONNECTED	114829	DEMAND
AMPS: TOTAL	317	CONNECTED	319	DEMAND

L	R	O	TOTAL		
1138	3240	34393	VA CONNECTED TO A PHASE	38771 VA =	323 AMPS CONNECTED TO A PHASE @ 120 VOLTS
1584	3420	33061	VA CONNECTED TO B PHASE	38065 VA =	317 AMPS CONNECTED TO B PHASE @ 120 VOLTS
	3600	33842	VA CONNECTED TO C PHASE	37442 VA =	312 AMPS CONNECTED TO C PHASE @ 120 VOLTS
2722	10260	101296	TOTAL	114278 VA	

PANELBOARD B2

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
100 A MAIN LUGS ONLY — MOUNTING: RECESSED
BUSES: MAIN – 100 A; NEUTRAL – 200%; EQUIPMENT GROUND; ISOLATED GROUND; SPD PANELBOARD — Isc = 10,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
	360		RECEPTACLES	20/1	1	A	2	20/1	COMPUTERS		360	
	360		RECEPTACLES	20/1	3	B	4	20/1	COMPUTERS		540	
	720		RECEPTACLES	20/1	5	C	6	20/1	COMPUTERS		720	
	540		RECEPTACLES	20/1	7	A	8	20/1	COMPUTERS		540	
	720		RECEPTACLES	20/1	9	B	10	20/1	COMPUTERS		720	
	720		RECEPTACLES	20/1	11	C	12	20/1	COMPUTERS		720	
		1200	EWC	20/1	13	A	14	20/1	COMPUTERS		360	
	1080		RECEPTACLES	20/1	15	B	16	20/1	IDF			1000
	720		RECEPTACLES	20/1	17	C	18	20/1	SPARE			
	720		RECEPTACLES	20/1	19	A	20	20/1	SPARE			
		900	REFRIGERATOR	20/1	21	B	22	20/1	SPARE			
		500	KIT RECEPTACLES	20/1	23	C	24	20/1	SPARE			
		500	KIT RECEPTACLES	20/1	25	A	26	20/1	SPARE			
		500	KIT RECEPTACLES	20/1	27	B	28	20/1	SPARE			
		500	KIT RECEPTACLES	20/1	29	C	30	20/1	SPARE			
	360		RECEPTACLES	20/1	31	A	32	20/1	SPACE			
			SPACE	20/1	33	B	34	20/1	SPACE			
			SPACE	20/1	35	C	36	20/1	SPACE			
			SPACE	20/1	37	A	38	30/3	SURGE PROTECTIVE DEVICE			
			SPACE	20/1	39	B	40	–	(INTERNAL)			
			SPACE	20/1	41	C	42	–	*			

VA:L (LIGHTING)		CONNECTED		DEMAND
VA:R (RECEPTACLES)	10260	CONNECTED	10130	DEMAND
VA:O (OTHER)	5100	CONNECTED	5100	DEMAND
VA: TOTAL	15360	CONNECTED	15230	DEMAND
AMPS: TOTAL	43	CONNECTED	42	DEMAND

L	R	O	TOTAL		
	3240	1700	VA CONNECTED TO A PHASE	4940 VA =	41 AMPS CONNECTED TO A PHASE @ 120 VOLTS
	3420	2400	VA CONNECTED TO B PHASE	5820 VA =	49 AMPS CONNECTED TO B PHASE @ 120 VOLTS
	3600	1000	VA CONNECTED TO C PHASE	4600 VA =	38 AMPS CONNECTED TO C PHASE @ 120 VOLTS
	10260	5100	TOTAL	15360 VA	

ELECTRICAL PANEL SCHEDULES 1

N.T.S.

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PALMER PAVILION RENOVATION

McALLEN, TEXAS USA

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JOB #:	2015-010
PHASE:	100% CD
DATE:	09.12.2016
DRAWN BY:	M.G.
CHECKED BY:	A.D.

STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
LICENSED
PROFESSIONAL ENGINEER
09.12.2016

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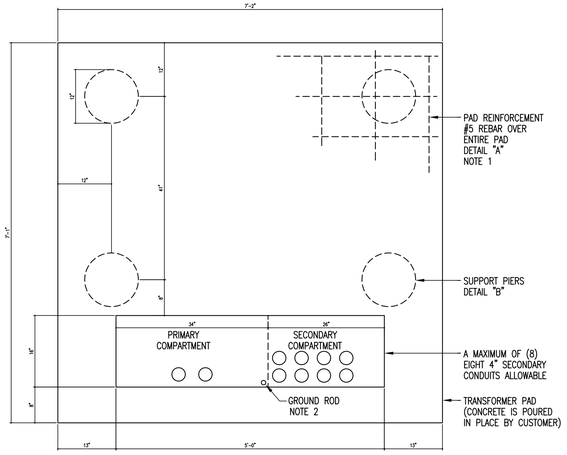
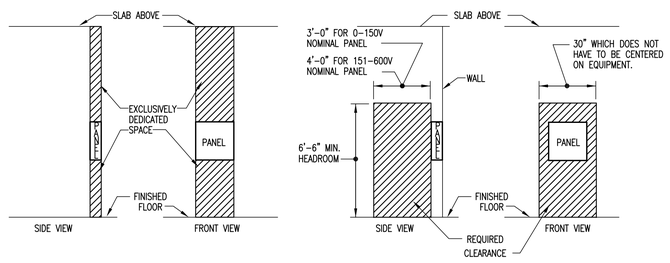
E4.01



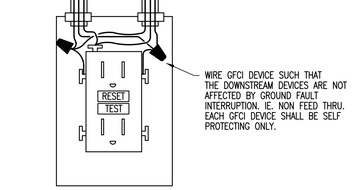
CON.PAD AND PIERS DOR THREE PHASE PAD MOUNTED TRANSFORMER

N.T.S. **1**



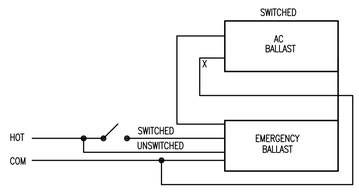
TYPICAL PANELBOARD REQUIRED CLEARANCE

N.T.S. **2**



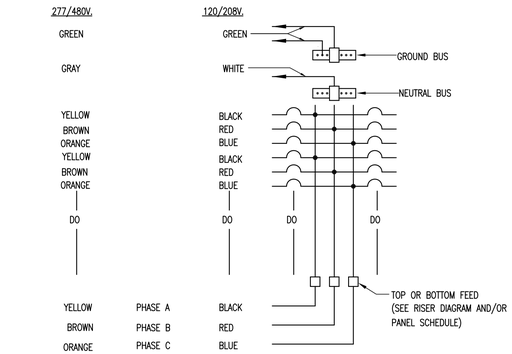
GFCI RECEPTACLE – WIRING DIAGRAM

N.T.S. **3**



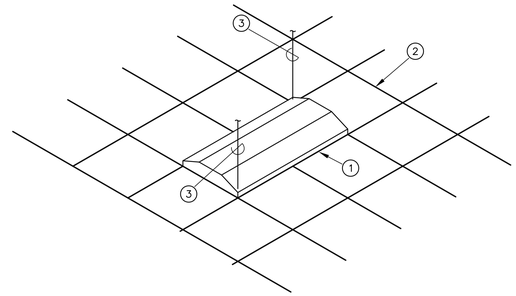
EMERGENCY BALLAST WIRING DETAIL

N.T.S. **4**



TYPICAL PANEL COLOR DETAIL

N.T.S. **5**



NOTES BY SYMBOL " ◯ "
① 2'x 4' LAY-IN FLUORESCENT FIXTURE
② SUSPENDED CEILING
③ TIE WIRE, CONNECT TO TWO CORNERS OF FIXTURE TO STRUCTURE ABOVE, INDEPENDENT OF CEILING SUPPORTS.

TYPICAL LAY-IN FIXTURE SUPPORT

N.T.S. **6**

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PALMER PAVILION RENOVATION

USA

Mc ALLEN, TEXAS

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JOB #:	2015-010
PHASE:	100% CD
DATE:	09.12.2016
DRAWN BY:	M.G.
CHECKED BY:	A.D.

STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
LICENSED
PROFESSIONAL ENGINEER
09.12.2016

MEP SOLUTIONS ENGINEERING
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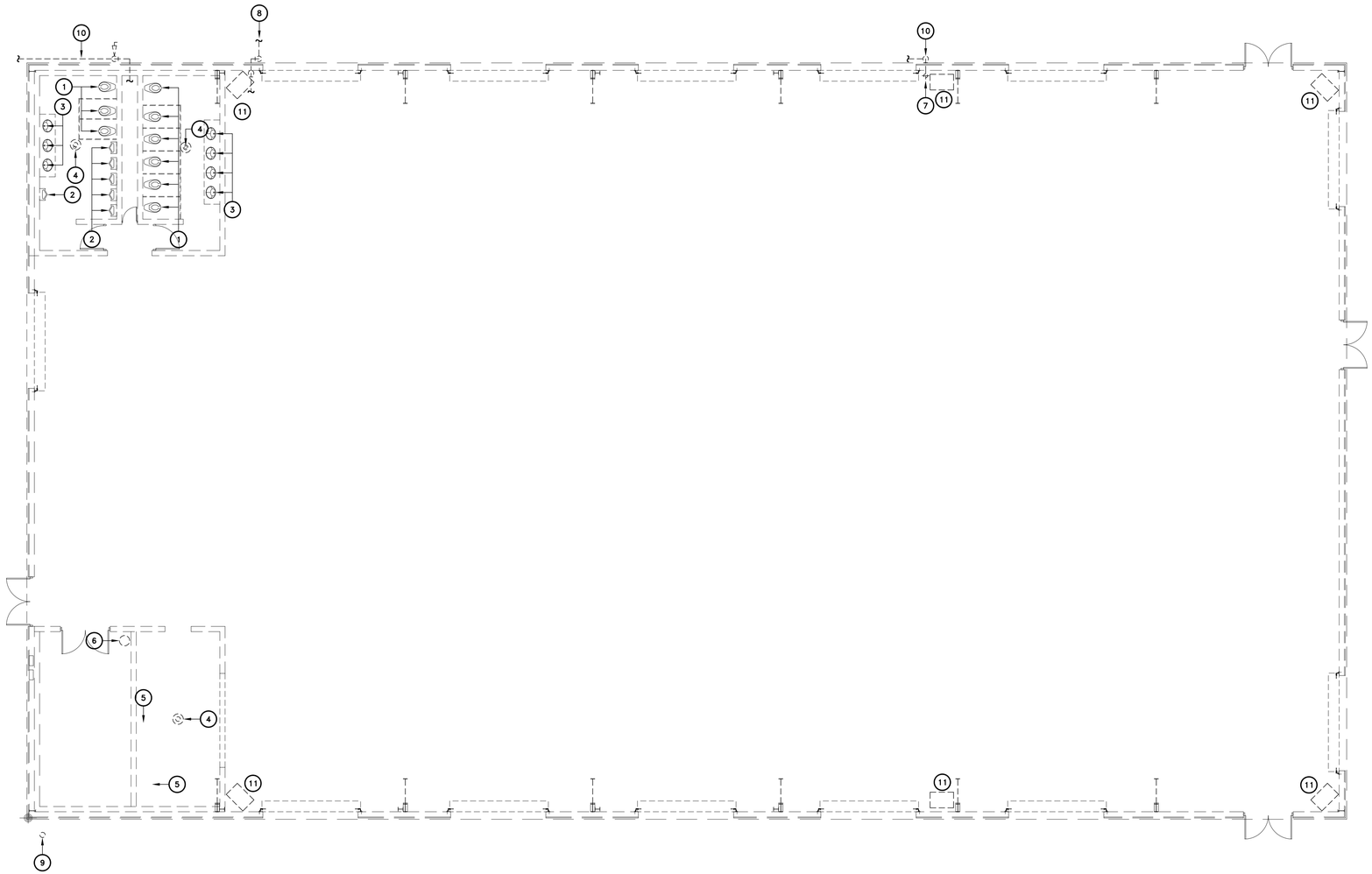
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

E5.01

PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.



N

DEMOLITION PLUMBING FLOOR PLAN 1

1/8" = 1'-0"

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THE PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS.

C. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

D. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 8000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (EQUIPMENT FLANGES, FRAMING, OR ESCUTCHEONS) AROUND OPENINGS IN FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES.

E. CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PLUMBING DEMOLITION KEY NOTES:

(1) DEMOLISH EXISTING WATER CLOSET COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL FLANGES. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(2) DEMOLISH EXISTING URINAL COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL FLANGES. CAP OFF PLUMBING LINES IN ATTIC OR UNDER FINISH FLOOR ELEVATION. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(3) DEMOLISH EXISTING LAVATORY COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL CARRIER SYSTEMS. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(4) DEMOLISH EXISTING FLOOR DRAIN COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(5) DEMOLISH EXISTING SINK COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL FLANGES. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(6) DEMOLISH EXISTING WATER HEATER. DISCONNECT AND REMOVE WATER, GAS, FLUE AND VENT SERVICE. NO VALVES OR LEAKING JOINTS SHALL REMAIN.

(7) DEMOLISH EXISTING HOSE BIBB COMPLETE. DISCONNECT AND REMOVE WATER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF PATCH AND REPAIR WALL, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(8) DEMOLISH EXISTING GAS SERVICE COMPLETE. DISCONNECT AND REMOVE GAS LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF PATCH AND REPAIR WALL, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(9) DEMOLISH EXISTING CLEAN OUT. DISCONNECT AND REMOVE ALL CLEAN OUTS. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF SEWER PIPING BELOW FINISH FLOOR. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(10) DEMOLISH EXISTING DOMESTIC WATER PIPING. DISCONNECT AND REMOVE ALL DOMESTIC WATER PIPING LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF DOMESTIC WATER PIPING BELOW FINISH GRADE MINIMUM 5 FEET AWAY FROM EXTERIOR WALL. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

(11) DEMOLISH EXISTING GAS HEATERS COMPLETE. DISCONNECT AND REMOVE GAS LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF PATCH AND REPAIR WALL, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED PROFESSIONAL ENGINEER

09.12.2016

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PALMER PAVILION RENOVATION

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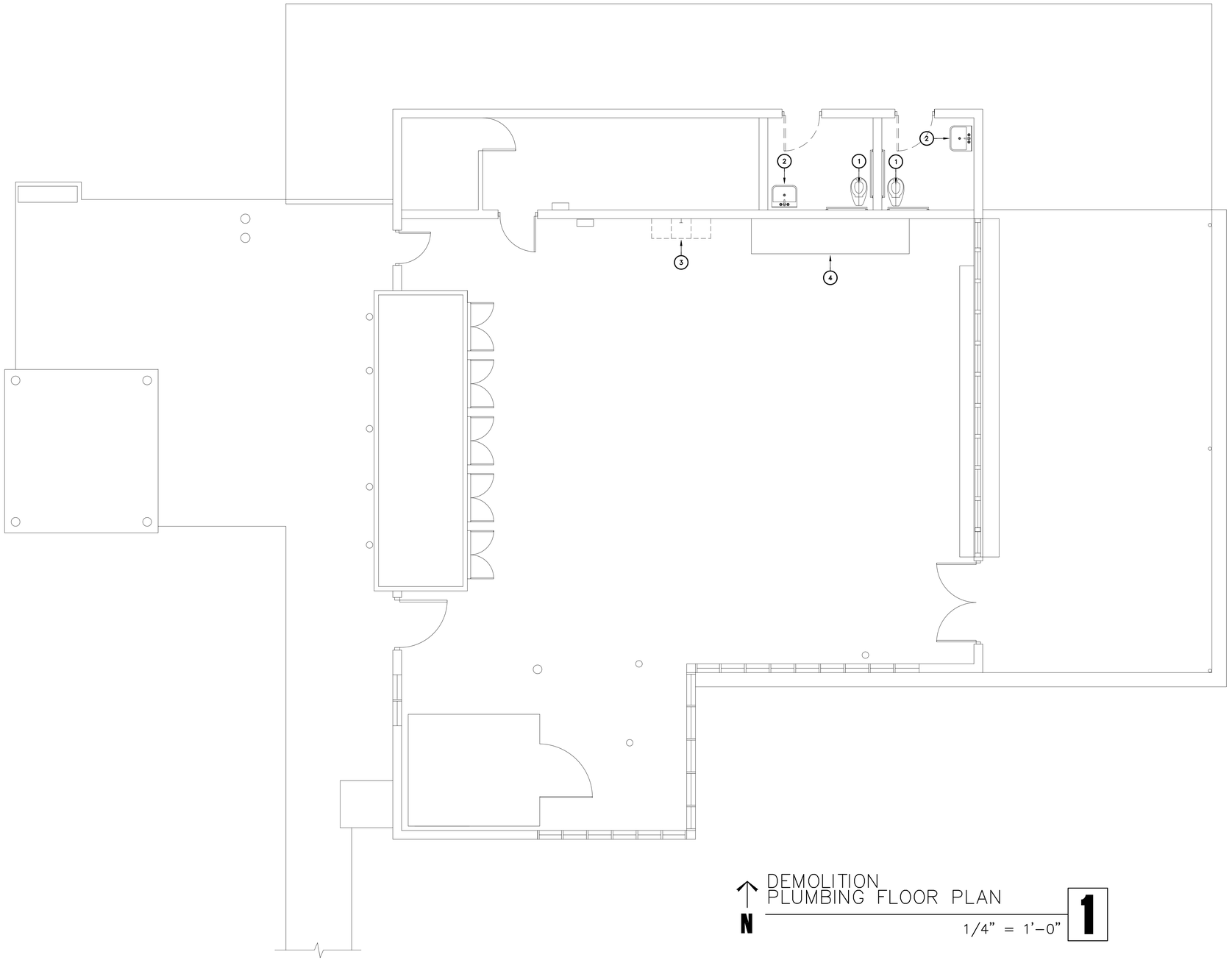
DP1.01



N

DEMOLITION
PLUMBING FLOOR PLAN

1/4" = 1'-0"

1

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PLUMBING DEMOLITION KEY NOTES:

1. REMOVE EXISTING WATER CLOSET. EXISTING SEWER/VENT/WATER SERVICE SHALL REMAIN FOR RE-USE.
2. REMOVE EXISTING LAVATORY. EXISTING SEWER/VENT/WATER SERVICE SHALL REMAIN FOR RE-USE.
3. REMOVE EXISTING 3-COMPARTMENT SINK. EXISTING SEWER/VENT/WATER SERVICE SHALL REMAIN FOR RE-USE.
4. REMOVE EXISTING GAS GRILL. EXISTING GAS SERVICE SHALL REMAIN FOR RE-USE.

PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

IT IS THE INTENT OF THE PLANS TO RE-USE EXISTING PLUMBING SYSTEMS WHICH ARE IN PLACE (SEWER/WATER/VENT DISTRIBUTION) MAIN LINES SHALL REMAIN IN PLACE FOR RECONNECTION ONTO NEW FIXTURES. REFER TO PLUMBING PLAN.

STATE OF TEXAS
LUIS JAVIER PENA
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LICENSED PROFESSIONAL ENGINEER

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JOB #:	2015-010
PHASE:	100% CD
DATE:	09.12.2016
DRAWN BY:	T.T.
CHECKED BY:	J.P.

DP1.02

GENERAL NOTES: ( )

(A) INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING SITE SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPTANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.

KEYED NOTES:○

1. FURNISH AND INSTALL BALL VALVE ON EXTERIOR DOMESTIC WATER RISE PIPE. PROVIDE WITH INSULATION AND ALUMINUM JACKET. REFER TO CIVIL PLAN FOR DOMESTIC WATER LINE CONTINUATION 5-FEET BEYOND BUILDING.
2. PROPOSED 4" SEWER LINE. REFER TO CIVIL PLAN FOR EXACT LOCATION.
3. PLUMBING CONTRACTOR SHALL VERIFY POINT OF CONNECTION TO UTILITIES PRIOR TO BID TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

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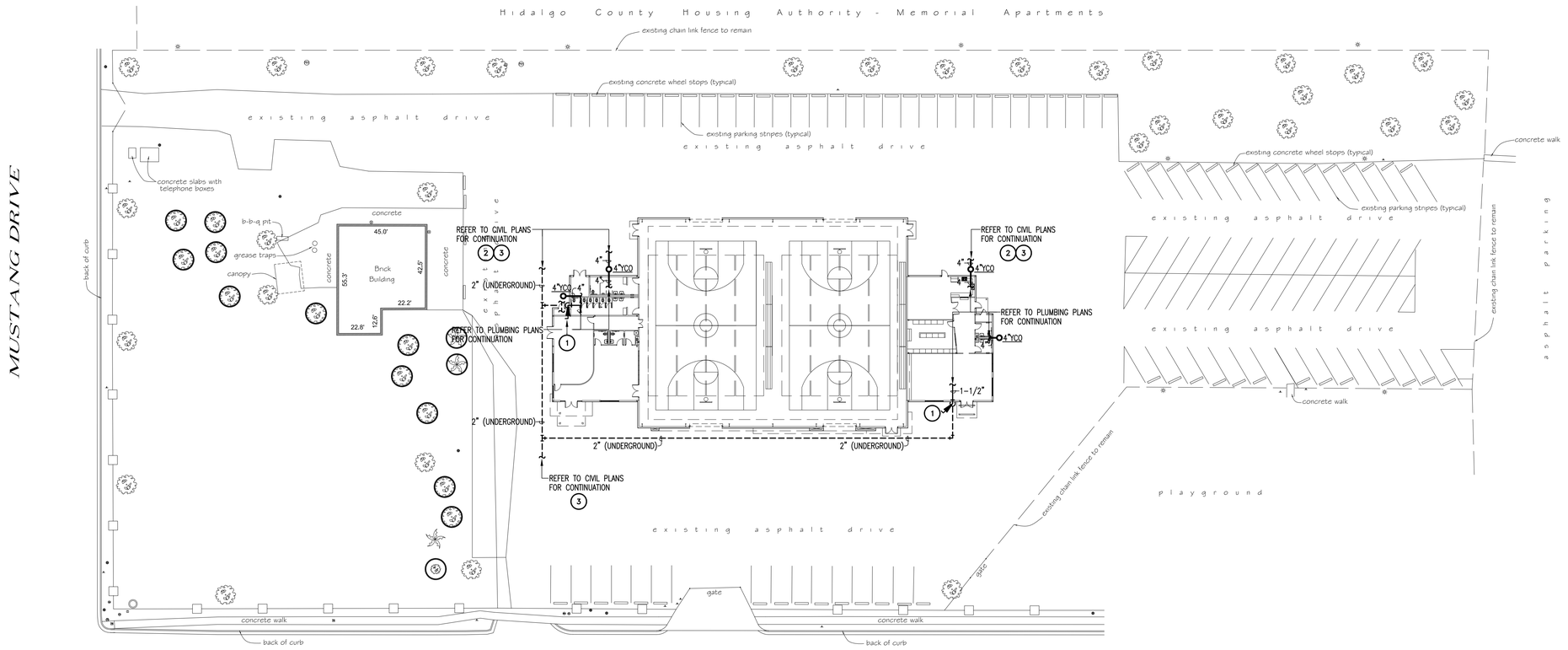

N

PLUMBING SITE PLAN 1

1" = 30'-0"

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P1.00

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KEY NOTES: ○

1. PROVIDE TRAP PRIMER CONNECTION FROM NEAREST FLUSH VALVE TRAP PRIMER, REFER TO DETAIL.
2. REFER TO HW/CW FLOOR PLAN FOR CONTINUATION OF PRIMER LINE AND TRAP PRIMER LOCATION ABOVE CEILING.
3. COPPER CONDENSATE DRAIN LINE IN ATTIC SPACE, INSULATE C.D. LINE AND PROVIDE PIPE HANGER SUPPORTS MAXIMUM 5'-0" O.C. SPACING. ROUTE AND DROP CONDENSATE LINE DOWN INTO MOP SINK. CLAMP LINE SECURELY TO WALL, REFER TO DETAIL.
4. ROUTE FULL SIZE CONDENSATE DRAIN LINE TO NEAREST FLOOR SINK.
5. COORDINATE FLOOR SINK LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR FOR FINAL EQUIPMENT LOCATIONS PRIOR TO COMMENCEMENT OF WORK TO AVOID CONFLICT.
6. COORDINATE HUB DRAIN LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR FOR FINAL EQUIPMENT LOCATIONS PRIOR TO COMMENCEMENT OF WORK TO AVOID CONFLICT.
7. COORDINATE HUB DRAIN LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR FOR FINAL EQUIPMENT LOCATIONS PRIOR TO COMMENCEMENT OF WORK TO AVOID CONFLICT.
8. PROVIDE AND INSTALL 3" COPPER CONDENSATE DRAIN LINE FROM UNIT TO HUB DRAIN. REFER TO DETAIL.

GENERAL NOTES: ( )

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(B) PLUMBING CONTRACTOR SHALL ADHERE TO ALL CITY CODES, STATE CODES AND LOCAL CODES THAT HAVE AUTHORITY OVER THIS PROJECT.

(C) PLUMBING CONTRACTOR SHALL TERMINATE ALL WATER ROUGH-IN WITH SHUT-OFF VALVES BEFORE CONNECTING TO EQUIPMENT AND RELATED FIXTURES.

(D) PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ANY INSTALLATION OF PIPING AND DUCTWORK PRIOR TO BEGINNING OF CONSTRUCTION

(E) INSULATE "P" TRAPS AND SUPPLIES AT HANDICAP LAVATORIES WITH INSULATION KIT.

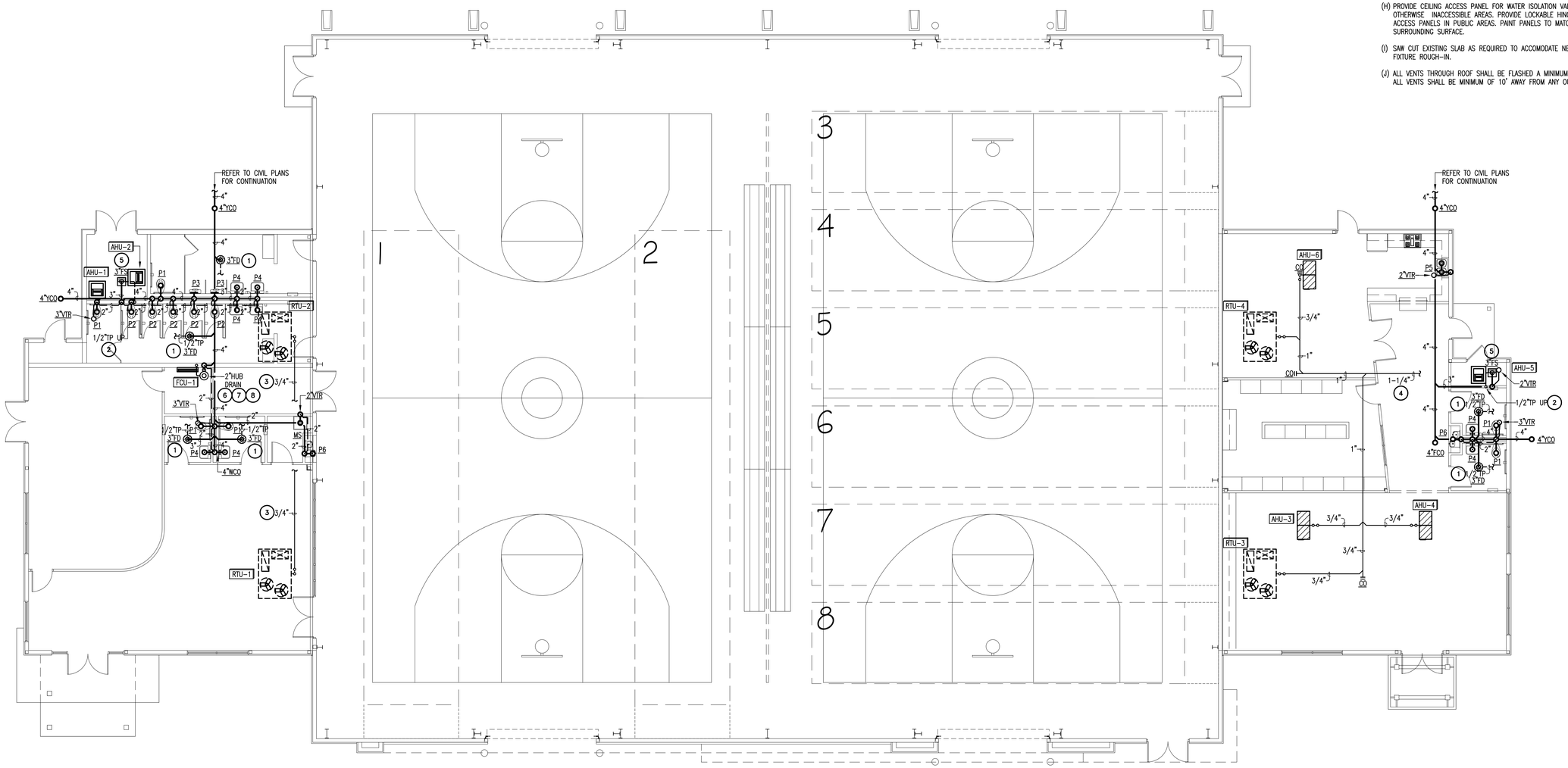
(F) PROVIDE VACUUM BREAKER TO ALL FIXTURES WITH HOSE CONNECTION AND APPLIANCES WITH DIRECT CONNECTIONS TO DOMESTIC WATER.

(G) REFER TO ARCHITECTS DRAWINGS FOR MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES

(H) PROVIDE CEILING ACCESS PANEL FOR WATER ISOLATION VALVES, IN OTHERWISE INACCESSIBLE AREAS. PROVIDE LOCKABLE HINGED ACCESS PANELS IN PUBLIC AREAS. PAINT PANELS TO MATCH SURROUNDING SURFACE.

(I) SAW CUT EXISTING SLAB AS REQUIRED TO ACCOMODATE NEW PLUMBING FIXTURE ROUGH-IN.

(J) ALL VENTS THROUGH ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE ROOF. ALL VENTS SHALL BE MINIMUM OF 10' AWAY FROM ANY OUTSIDE AIR INTAKE.



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PLUMBING SEWER FLOOR PLAN **1**

1/8" = 1'-0"

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KEY NOTES: ○

1. FURNISH AND INSTALL BALL VALVE ON EXTERIOR DOMESTIC WATER RISE PIPE. PROVIDE WITH INSULATION AND ALUMINUM JACKET.
2. TRAP PRIMER WITH 1/2" LINE LOCATED ABOVE CEILING. REFER TO DETAIL.
3. FIXTURE SHALL BE PROVIDED WITH THERMOSTATIC MIXING VALVE LOCATED UNDER PLUMBING FIXTURE EQUAL TO A LEONARD MODEL 170 WITH COLD WATER BY-PASS AND MOUNTING BRACKET. REFER TO DETAIL.
4. PROVIDE AND INSTALL WATER HEATER. ROUTE WATER HEATER'S PRESSURE RELIEF AND DRAIN PAN LINES TO EXTERIOR OF BUILDING.
5. PROPOSED FIRE SPRINKLER SUPPLY LINE, FIRE DEPARTMENT CONNECTION AND PIPE SHALL BE SIZED BY A LICENSED FIRE SPRINKLER DESIGNER. DESIGNER SHALL COORDINATE WITH ALL OTHER TRADES FOR WATER SUPPLY LINE REQUIREMENTS AND FIRE DEPARTMENT CONNECTION TO MEET CITY INSTALLATION REQUIREMENTS.
6. PLUMBING CONTRACTOR SHALL VERIFY POINT OF CONNECTION TO BUILDING UTILITIES PRIOR TO BID TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

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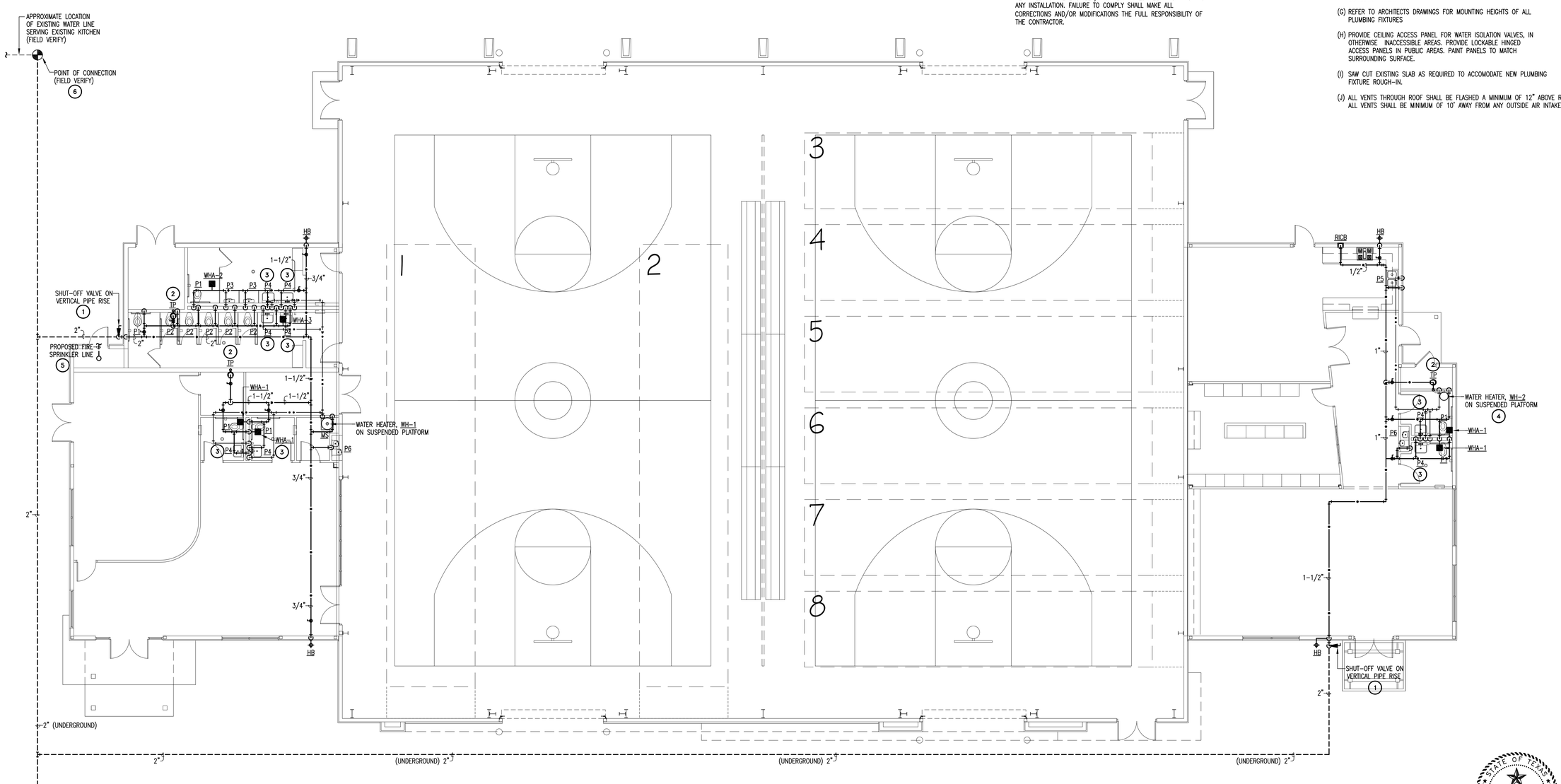

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PLUMBING HW/CW FLOOR PLAN **1**

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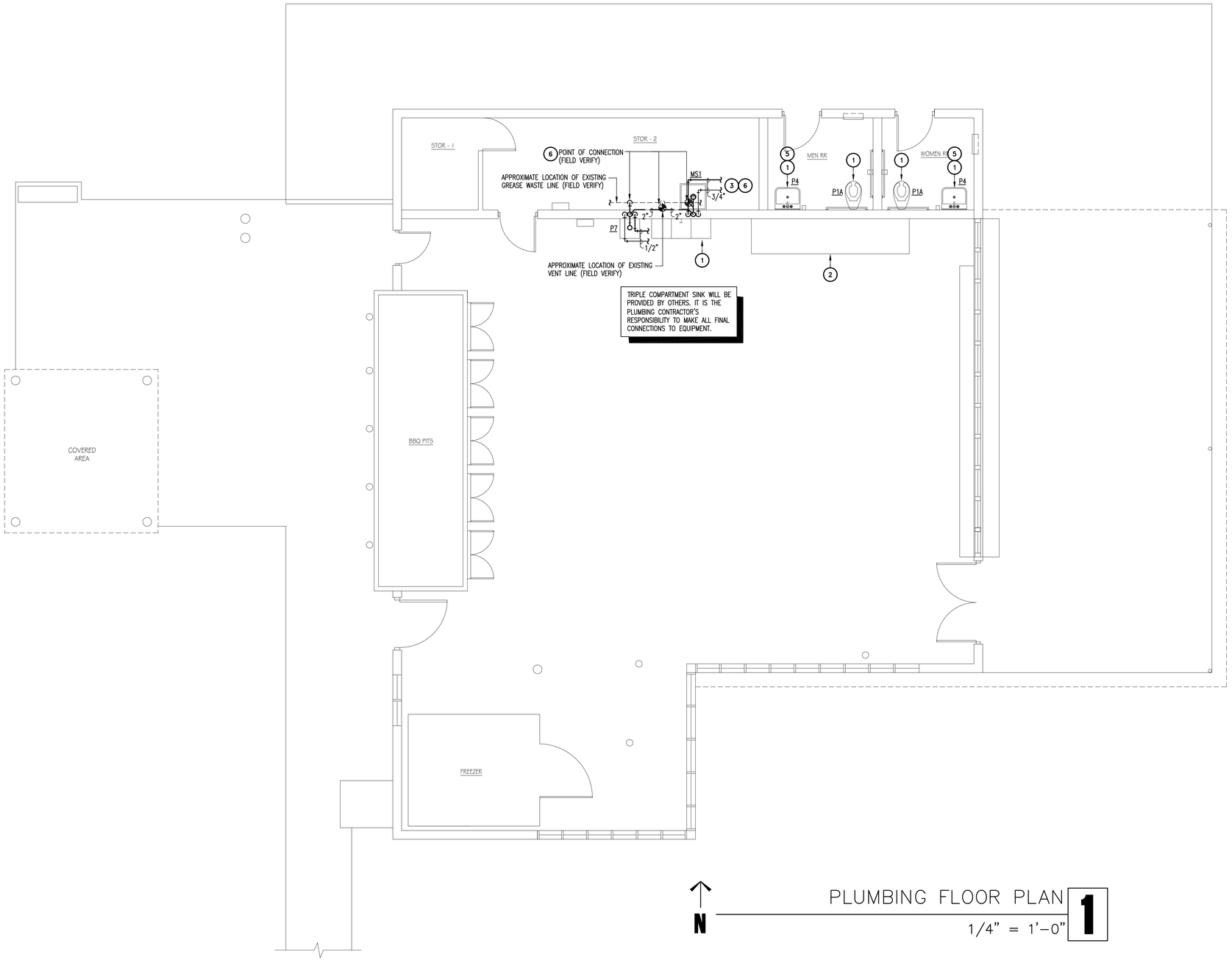
CHECKED BY:	J.P.

P1.02



N

PLUMBING FLOOR PLAN 1

1/4" = 1'-0"

GENERAL NOTES: ( )

(A) INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.

(B) PLUMBING CONTRACTOR SHALL ADHERE TO ALL CITY CODES, STATE CODES AND LOCAL CODES THAT HAVE AUTHORITY OVER THIS PROJECT.

(C) PLUMBING CONTRACTOR SHALL TERMINATE ALL WATER ROUGH-IN WITH SHUT-OFF VALVES BEFORE CONNECTING TO EQUIPMENT AND RELATED FIXTURES.

(D) PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ANY INSTALLATION OF PIPING AND DUCTWORK PRIOR TO BEGINNING OF CONSTRUCTION

(E) INSULATE "P" TRAPS AND SUPPLIES AT HANDICAP LAVATORIES WITH INSULATION KIT.

(F) PROVIDE VACUUM BREAKER TO ALL FIXTURES WITH HOSE CONNECTION AND APPLIANCES WITH DIRECT CONNECTIONS TO DOMESTIC WATER.

(G) REFER TO ARCHITECTS DRAWINGS FOR MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES

(H) PROVIDE CEILING ACCESS PANEL FOR WATER ISOLATION VALVES, IN OTHERWISE INACCESSIBLE AREAS. PROVIDE LOCKABLE HINGED ACCESS PANELS IN PUBLIC AREAS. PAINT PANELS TO MATCH SURROUNDING SURFACE.

(I) SAW CUT EXISTING SLAB AS REQUIRED TO ACCOMODATE NEW PLUMBING FIXTURE ROUGH-IN.

(J) ALL VENTS THROUGH ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE ROOF. ALL VENTS SHALL BE MINIMUM OF 10' AWAY FROM ANY OUTSIDE AIR INTAKE.

KEY NOTES: ○

1. RECONNECT NEW PLUMBING FIXTURE TO EXISTING SEWER/VENT/WATER SERVICE. EXTEND LINES AS REQUIRED.
2. RECONNECT NEW GAS FIXTURE TO EXISTING GAS SERVICE. EXTEND LINES AS REQUIRED.
3. ROUTE AND CONNECT TO EXISTING WATER SYSTEM SERVING THE BUILDING. FIELD VERIFY POINT OF CONNECTION.
4. ROUTE AND CONNECT TO EXISTING VENT SYSTEM SERVING TRIPLE COMPARTMENT SINK. FIELD VERIFY POINT OF CONNECTION.
5. FIXTURE SHALL BE PROVIDED WITH THERMOSTATIC MIXING VALVE LOCATED UNDER PLUMBING FIXTURE EQUAL TO A LEONARD MODEL 170 WITH COLD WATER BY-PASS AND MOUNTING BRACKET. REFER TO DETAIL.
6. PLUMBING CONTRACTOR SHALL VERIFY POINT OF CONNECTION TO BUILDING UTILITIES PRIOR TO BID TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

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PALMER PAVILION RENOVATION

Mc ALLEN, TEXAS USA

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STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED PROFESSIONAL ENGINEER

09.12.2016

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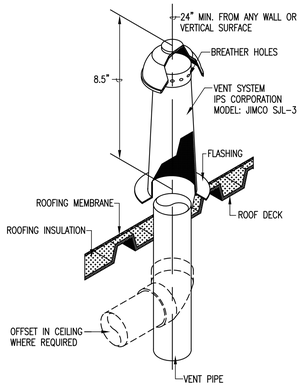
P1.03



A VENT THROUGH ROOF DETAIL
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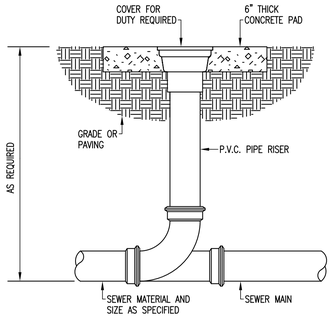

B EXTERIOR CLEANOUT DETAIL
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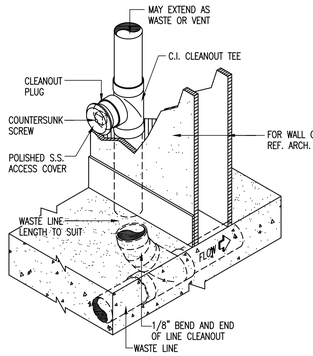

C WALL CLEANOUT DETAIL
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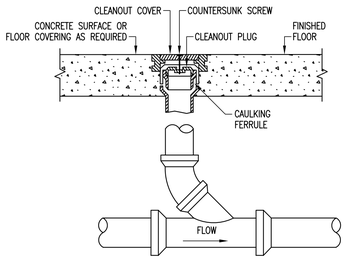

D FLOOR CLEANOUT DETAIL
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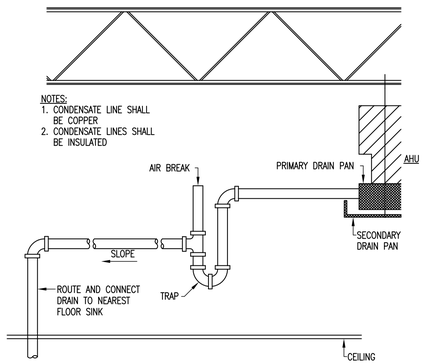
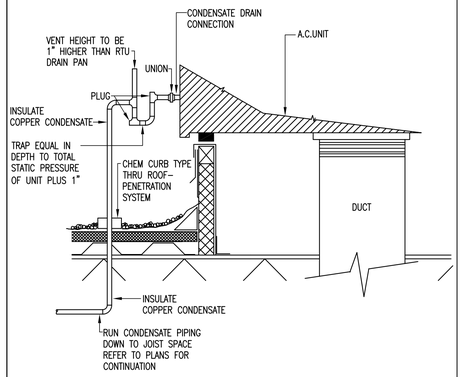
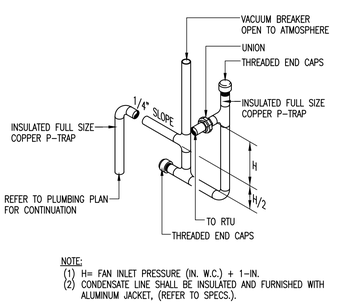


E SUSPENDED AIR HANDLER CONDENSATE DRAIN DETAIL
SCALE: NTS



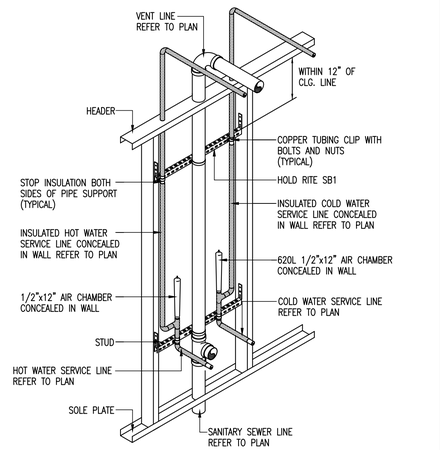
F ROOF TOP UNIT CONDENSATE CONNECTION DETAIL
SCALE: N.T.S.

MARK	FIXTURE TYPE	CONNECTION SIZE				DESCRIPTION
		SEWER	VENT	CW	HW	
P1	WATER CLOSET (HANDICAP)	4"	2"	1"	–	VITREOUS CHINA, ELONGATED RIM, FLOOR MOUNTED WATER CLOSET WITH 1-1/2" TOP SPUD. ZURN "ECOVANTAGE" MODEL "Z5665-BWL". 16-3/4" RIM HEIGHT, 1.6 GPF, 10" ROUGH-IN, SIPHON JET ACTION WITH SLOAN "ROYAL" FLUSH MODEL "111-1P" WITH TRAP PRIMER CONNNECTION WHERE SHOWN ON PLANS, BENEKE MODEL "533" OPEN FRONT SEAT LESS COVER.
P1A	WATER CLOSET (HANDICAP) (KITCHEN)	4"	2"	3/4"	–	VITREOUS CHINA, ELONGATED RIM, FLOOR MOUNTED CLOSE COUPLED, TWO PIECE WATER CLOSET. ZURN PRESSURE ASSIST MODEL "Z5560". 16-3/4" RIM HEIGHT, 1.6 GPF, 12" ROUGH-IN, SIPHON JET BOWL, PRESSURE ASSIST TANK, POLISHED CHROME LEFT HAND TRIP LEVER, WITH BENEKE MODEL "533" OPEN FRONT SEAT LESS COVER.
P2	WATER CLOSET	4"	2"	1"	–	VITREOUS CHINA, ELONGATED RIM, FLOOR MOUNTED WATER CLOSET WITH 1-1/2" TOP SPUD. ZURN "ECOVANTAGE" MODEL "Z5655-BWL". 15" RIM HEIGHT, 1.6 GPF, 10" ROUGH-IN, SIPHON JET ACTION WITH SLOAN "ROYAL" FLUSH MODEL "111-1P" WITH TRAP PRIMER CONNNECTION WHERE SHOWN ON PLANS, BENEKE MODEL "533" OPEN FRONT SEAT LESS COVER.
P3	URINAL (HANDICAP)	2"	2"	3/4"	–	VITREOUS CHINA, WALL HUNG, SIPHON JET ACTION WITH 3/4" TOP SPUD AND WALL HANGERS. MINIMUM 14" RIM TO WALL DISTANCE. EQUAL TO ZURN MODEL "Z5730" WITH SLOAN ROYAL "186-1" FLUSH VALVE AND APPROVED CARRIER SYSTEM.
P4	LAVATORY WALL HUNG (HANDICAP)	2"	2"	1/2"	1/2"	VITREOUS CHINA, WALL HUNG LAVATORY WITH HOLES ON 4" CENTERS EQUAL TO ZURN MODEL "Z5340". COMPLETE WITH LAVATORY FAUCET MOEN MODEL "8413F15". CHROME FINISH, SINGLE LEVER HANDLE, 1.5 GPM FLOW, ADA APPROVED, WITH CARRIER AND PROTECTIVE COVER ON P-TRAP.
P5	STAINLESS STEEL COUNTERTOP SINK (HANDICAP)	2"	2"	1/2"	1/2"	DOUBLE COMPARTMENT STAINLESS STEEL SINK EQUAL TO ELKAY MODEL "LRAD-3321-60-3". SELF RIMMING, 32"X21"X6", 3 HOLES ON 4" CENTERS, 18 GAUGE, UNDERCOATED. COMPLETE WITH MOEN MODEL "8289" SWING GOOSENECK SPOUT, CHROMED METAL WRIST BLADE HANDLES, DECK MOUNT FAUCET AND "LK-35" STRAINER WITH BASKET.
P6	BI-LEVEL ELECTRIC WATER COOLER (HANDICAP)	2"	2"	1/2"	–	BI-LEVEL, SELF-CONTAINED, WALL HUNG REFRIGERATED WATER COOLER EQUAL TO ELKAY "EZSTL-8". SELF CLOSING CONTROLS ON FRONT AND SIDE, STAINLESS STEEL BASIN. FLEX-GUARD BUBBLER CAPABLE OF DELIVERING 8.0 GPH OF 50°F WATER WITH 80°F INLET WATER AND 90°F ROOM TEMPERATURE. FURNISH WITH CARRIER AND APRON.
P7	STAINLESS STEEL WALL HUNG HAND SINK (KITCHEN)	2"	2"	1/2"	–	SINGLE COMPARTMENT STAINLESS STEEL HAND SINK ELKAY MODEL "CHS-1716-C" WITH FULL LENGTH 7" BACKSPLASHFUNISHED WITH WALL HANGER, INTEGRAL STAINLESS STEEL SUPPORT BRACKETS. COMPLETE WITH FAUCET "LK-499"CHROME PLATED GOOSENECK SPOUT FAUCET WITH AERATOR, "LK-8" DRAIN FITTING, "LK-500" SATIN CHROME TUBING P-TRAP WITH CLEANOUT. WASTE ARM TO WALL AND WALL FLANGE.
MS	MOP SINK FLOOR MOUNTED	2"	2"	3/4"	3/4"	TERRAZO, SQUARE MOP SINK EQUAL TO FIAT "TSBC-3010" 24"X24"X12" WITH 6" DROP FRONT, STAINLESS STEEL RIM GUARD AND "MSG-2424" WALL GUARD. COMPLETE WITH MOEN MODEL "8124 CHROME" SERVICE SINK FAUCET WITH 8" CENTERS, PAIL HOOK, AND VACUUM BREAKER SPOUT. COMPLETE WITH "832-AA" HOSE AND BRACKET, "889-CC" STAINLESS STEEL MOP BRACKET AND GRID STRAINER.
MS1	UTILITY SINK FLOOR MOUNTED (KITCHEN)	2"	2"	3/4"	3/4"	FLOOR-MOUNTED MOLDED STONE RECTANGULAR SERVICE SINK EQUAL TO FIAT MODEL "FL-7", 20"X24" WITH BACKED ENAMEL LEGS AND LEVELING FEET. FURNISH COMPLETE WITH "A1" DECK TYPE FAUCET".
WH-1	WATER HEATER	–	–	3/4"	3/4"	30 GALLON WATER HEATER SHALL BE EQUAL TO A RHEEM MODEL "ELDS30". IT SHALL BE 208V/1ø 4.5KW WITH A RECOVERY OF 30 GALLONS PER HOUR @ 60°F RISE. PROVIDE AND INSTALL EXPANSION TANK AS PER MANUFACTURER RECOMMENDATIONS.
WH-2	WATER HEATER	–	–	3/4"	3/4"	10 GALLON WATER HEATER SHALL BE EQUAL TO A RHEEM MODEL "ECSP10". IT SHALL BE 208V/1ø 4.5KW WITH A RECOVERY OF 30 GALLONS PER HOUR @ 60°F RISE. PROVIDE AND INSTALL EXPANSION TANK AS PER MANUFACTURER RECOMMENDATIONS.
3"FD	GENERAL DUTY FLOOR DRAIN	3"	2"	–	–	ZURN MODEL "Z-415-B" LACQUERED CAST IRON FLOOR DRAIN. FURNISH COMPLETE WITH "TYPE B" NICKEL BRONZE STRAINER AND 1/2" TRAP PRIMER CONNECTION.
3"FS	FLOOR SINK	3"	2"	–	–	ZURN MODEL "Z-1910-P-2" PORCELAIN-ENAMELED CAST IRON FLOOR SINK. 8"X8"X6" WITH ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER, PORCELAIN-ENAMELED CAST IRON 1/2" GRATE AND 1/2" TRAP PRIMER CONNECTION.
RICB	REFRIGERATOR ICE CONNECTION BOX	–	–	1/2"	–	GUY GRAY MODEL "BIM-875" ICE CONNECTION BOX.
HB	HOSE BIBB	–	–	3/4"	–	BACKFLOW PROTECTED WALL FAUCET EQUAL TO A WOODFORD MODEL "26-P" WITH POLISHED CHROME FINISH, 3/4" INLET, AND LOOSE TEE KEY.
FCO	FLOOR CLEANOUT	4"	–	–	–	ZURN MODEL "ZN1400" LEVEL-TROL ADJUSTABLE FLOOR CLEANOUT WITH DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED THREADED PLUG, AND ROUND SCORIATED POLISHED NICKEL BRONZE TOP ADJUSTABLE TO FINISHED FLOOR.
YCO	YARD CLEANOUT	4"	–	–	–	ZURN MODEL "Z1400-HD" LEVEL-TROL ADJUSTABLE FLOOR CLEANOUT WITH DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED THREADED PLUG, AND ROUND SCORIATED HEAVY-DUTY CAST IRON TOP ADJUSTABLE TO FINISHED FLOOR.
WCO	WALL CLEANOUT	4"	–	–	–	ZURN MODEL "Z1441" WALL CLEANOUT WITH DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED THREADED PLUG, AND ROUND SMOOTH STAINLESS STEEL ACCESS COVER WITH SECURING SCREW.
WHA-1	WATER HAMMER ARRESTOR	–	–	–	–	WATER HAMMER ARRESTOR FOR SINGLE RESTROOM SHALL BE EQUAL TO WADE PISTON-TYPE SHOKSTOPS MODEL #10 -P, COPPER FINNISH.
WHA-2	WATER HAMMER ARRESTOR	–	–	–	–	WATER HAMMER ARRESTOR FOR GANG RESTROOMS SHALL BE EQUAL TO ZURN SHOKTROL MODEL #200, Z1700 SERIES, STAINLESS STEEL.
WHA-3	WATER HAMMER ARRESTOR	–	–	–	–	WATER HAMMER ARRESTOR FOR GANG RESTROOMS SHALL BE EQUAL TO ZURN SHOKTROL MODEL #400, Z1700 SERIES, STAINLESS STEEL.



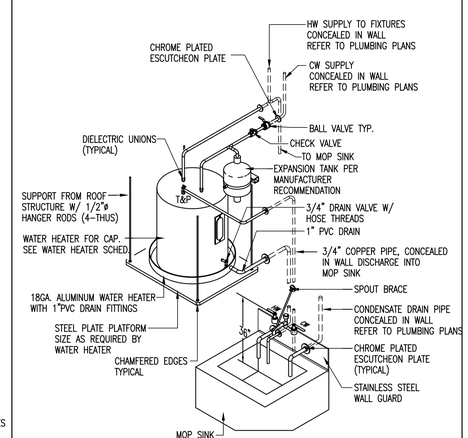
NOTE:
(1) H= FAN INLET PRESSURE (IN. W.C.) + 1-IN.
(2) CONDENSATE LINE SHALL BE INSULATED AND FURNISHED WITH ALUMINUM JACKET, (REFER TO SPECS.).

G RTU CONDENSATE P-TRAP DETAIL
SCALE: N.T.S.

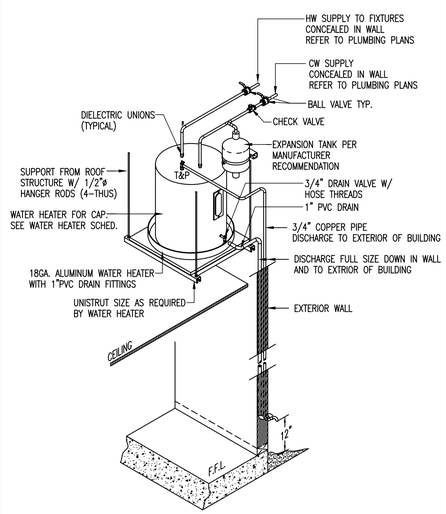


NOTE:
PROVIDE AIR CHAMBER MINIMUM OF TWELVE INCHES (12") IN LENGTH EQUAL TO NIBCO MODEL #619; INSTALL ON COLD WATER AND HOT WATER SUPPLIES TO PLUMBING FIXTURES.

H PLUMBING FIXTURE INSTALLATION DETAIL
SCALE: N.T.S.



I WATER HEATER MOUNTED ABOVE MOPSINK DETAIL
SCALE: N.T.S.



J WATER HEATER MOUNTED ABOVE MOPSINK DETAIL
SCALE: N.T.S.

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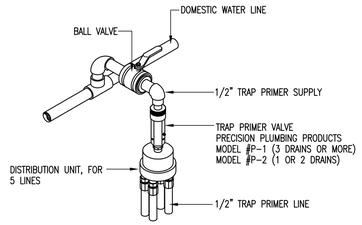

A TRAP SEAL PRIMER DETAIL
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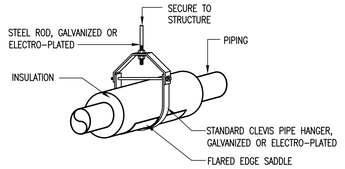

B PIPE HANGER SADDLE DETAIL
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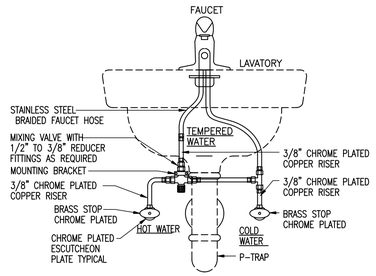
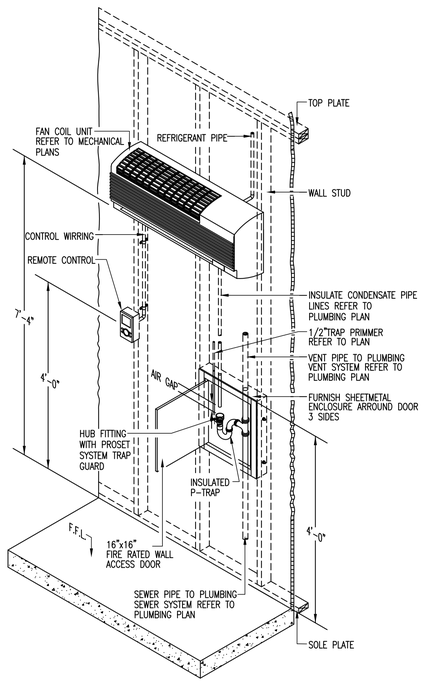


NOTE:
1. MIXING VALVE AND WATER LINES SHALL BE INSTALLED BETWEEN WALL AND P-TRAP TAILPIECE
2. PROVIDE AND INSTALL COVER KIT FOR P-TRAP AND STOPS.
3. FIELD INSULATE MIXING VALVE AND PIPING FROM MIXING VALVE TO FAUCET CONNECTION. JACKET INSULATION TO MATCH TRAP COVER KIT.
4. PROVIDE AND INSTALL REQUIRED 1/2" TO 3/8" REDUCERS AND CONNECTION FITTINGS.

C MIXING VALVE UNDER LAV DETAIL
SCALE: N.T.S.



D CONDENSATE DRAIN DETAIL
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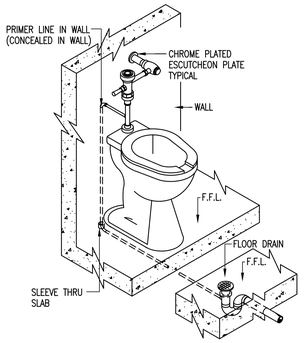


E FLUSH VALVE TRAP PRIMER DETAIL
SCALE: N.T.S.

PLUMBING SYSTEM – SECTION 15400

PIPING SYSTEMS–GENERAL: ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS, AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS DUCTS AND ELECTRICAL CONDUIT. PROVIDE AN ISOLATING DIALECTRIC UNION AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION.

PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED.

SEWER, GREASE AND WASTE PIPING: PROVIDE ALL DRAINS AND SEWERS WITHIN THE SPACE WITH CONNECTION TO THE EXISTING DRAINAGE SYSTEMS ON–SITE. SANITARY DRAINAGE PIPING SHALL BE PVC TYPE DWV, PLASTIC PIPE AND FITTINGS WITH SOLVENT CEMENT JOINTS. ALL DRAINAGE PIPING SHALL BE UNIFORMLY PITCHED, 1/8" PER FOOT UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS, OR INDICATED ON THE DRAWINGS. NO PVC DWV PIPING ALLOWED WITHIN CEILING VOIDS USED FOR NON–DUCTED RETURN AIR PLENUM. PVC DWV PIPING LOCATED IN RETURN AIR PLENUMS SHALL BE PROVIDED WITH FIRE–WRAP INSULATION.

VENTS: PROVIDE A COMPLETE SYSTEM OF PVC TYPE DWV, PLASTIC PIPE AND FITTINGS WITH SOLVENT CEMENTED JOINTS. THE VENT SYSTEM SHALL BE CARRIED THROUGH THE ROOF WITH APPROPRIATE FLASHING. PVC DWV PIPING LOCATED IN RETURN AIR PLENUMS SHALL BE PROVIDED WITH FIRE–WRAP INSULATION.

WATER DISTRIBUTION PIPING: LAYOUT WATER PIPING SO THAT THE ENTIRE SYSTEM CAN BE DRAINED. HOT AND COLD WATER PIPING SHALL BE 1/2" MINIMUM TYPE L COPPER TUBING WITH WROUGHT COPPER FITTINGS AND SWEAT CONNECTIONS. PROVIDE MINIMUM 16" HIGH FULL AIR CHAMBER AT EACH FIXTURE STOP. INSTALL CHROME PLATED BRASS ESCUTCHEON PLATES AT ALL PENETRATIONS THROUGH FINISHED SURFACES (INCLUDING CABINET INTERIORS). USE TIN–ANTIMONY SOLDER, 95/5 FOR ALL SWEAT FITTINGS OF COPPER PIPING.

GAS PIPING: LAYOUT GAS DISTRIBUTION PIPING AS SHOWN ON PLANS. PROVIDE BLACK STEEL PIPE TYPE E OR S WITH STEEL THREADED FITTINGS. LOCATE DRIPS AND TRAPS IN AREAS WHERE CONDENSATE MAY COLLECT. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO SECURE PIPING TO BUILDING. EXPOSED PIPING SHALL BE PAINTED BRIGHT YELLOW. TEST, INSPECT, AND PURGE PIPING PER REQUIREMENT OF AUTHORITIES HAVING JURISDICTION.

PIPE INSULATION: INSULATE ALL HOT WATER PIPING. PROVIDE 1/2" PREFORMED FIBERGLASS, ASJ–VB, FLAME SPREAD 25, SMOKE DEVELOPED 50, ASTM C–547. WHEN PERMITTED BY LOCAL CODE, PROVIDE 1/2" SELF–ADHESIVE UNICELLULAR FOAM PIPE INSULATION WITH PREFORMED PVC FITTING COVERS (EQUAL TO SELF–ADHESIVE ARMSTRONG 2000) WITH K FACTOR OF 0.27 AT 75°F MEAN TEMPERATURE. INSULATE ALL EXPOSED CONDENSATE PIPING WITH WASTE TEMPERATURES BELOW 60°F.

SHUTOFF VALVES WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE, FOOD SERVICE EQUIPMENT ITEM OR OTHER EQUIPMENT ITEM, TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS #902–T BALL VALVE, CHROME–FINISHED BRONZE, TEFLON SEATS AND PACKING, 400 LB. W.O.G., SOLDER END.

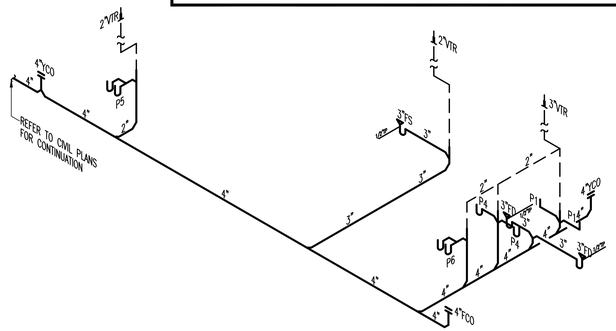
INSTALLATION: THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL FOR SANITARY JOINT, AND OMIT ESCUTCHEON.

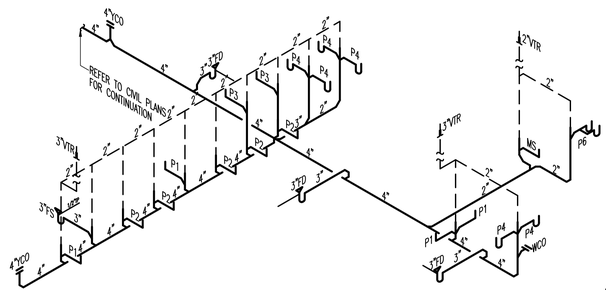
TEST WATER SYSTEM UNDER 150 PSIG HYDROSTATIC PRESSURE, FOR A MINIMUM OF FOUR (4) HOURS. WHEN TESTING INDICATES MATERIALS OR WORKMANSHIP IS DEFICIENT, REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST UNTIL STANDARDS ARE ACHIEVED. PROVIDE A STATIC TEST OF DWV SYSTEM. REPAIR OR REPLACE LEAKS AS REQUIRED.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
—•—	DOMESTIC COLD WATER LINE		BALL VALVE		UNION	CW	COLD WATER
—••—	DOMESTIC HOT WATER LINE		BALANCING VALVE		BRANCH – TOP CONNECTION	DN	DOWN
—•••—	DOMESTIC HOT WATER RETURN LINE		CHECK VALVE		PIPE RISER	F.F.E.	FINISH FLOOR ELEVATION
—TW—	DOMESTIC TEMPERED WATER LINE		GATE VALVE		PIPE DROP	FU	FIXTURE UNITS
— —	SANITARY SEWER VENT LINE	FCO	FLOOR CLEANOUT		THERMOMETER	GW	GREASE WASTE
	SANITARY WASTE LINE	YCO	YARD CLEANOUT		DIRECTION OF FLOW	I.E.	INVERT ELEVATION
—CD—	CONDENSATE LINE		FLOOR SINK	CV	CALIBRATING VALVE	HW	HOT WATER
—GW—	GREASE WASTE LINE		FLOOR DRAIN	WCO	WALL CLEANOUT	SS	SANITARY SEWER
—GAS—	GAS LINE		ROOF DRAIN	P / 1	PLUMBING RISER DESIGNATION	TP	TRAP PRIMER
— AIR —	AIR LINE		POINT OF CONNECTION	02 / P–3.1	PLUMBING DETAIL REFERENCE	TYP	TYPICAL
—AW—	ACID WASTE LINE		WALL HYDRANT	ABV. CLG.	ABOVE CEILING	UND. LAV.	UNDER LAVATORY
—RD—	ROOF DRAIN LINE		HOSE BIBB	B.F.F.	BELOW FINISH FLOOR	V	VENT
—OD—	OVERFLOW DRAIN LINE	WHA	WATER HAMMER ARRESTOR	CO	CLEAN OUT	VTR	VENT THRU ROOF

NOTE: NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT





F PLUMBING SEWER RISER SCHEMATIC DIAGRAM
SCALE: N.T.S.

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PALMER PAVILION RENOVATION
Mc ALLEN, TEXAS USA

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JOB #:	2015–010
PHASE:	100% CD
DATE:	09.12.2016
DRAWN BY:	T.T.
CHECKED BY:	J.P.

STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED
PROFESSIONAL ENGINEER
09.12.2016

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P2.02

SAM GARCIA ARCHITECT

SPECIFICATIONS FOR

PALMER PAVILION RENOVATION + LES GILMORE KITCHEN UPGRADES

HIDALGO COUNTY PRECINCT 2 PO# 733837

OWNER

COUNTY OF HIDALGO - PRECINCT 2
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Pharr, TX 78577

ARCHITECT

SAM GARCIA ARCHITECT
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CIVIL ENGINEER

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McAllen, TX 78501

STRUCTURAL ENGINEER

CHANIN ENGINEERING
400 Nolana, Suite N2
McAllen, TX 78504

SEPTEMBER 12, 2016

SAM GARCIA ARCHITECT

ARCHITECTURAL SPECIFICATIONS FOR

PALMER PAVILION RENOVATION + LES GILMORE KITCHEN UPGRADES

HIDALGO COUNTY PRECINCT 2 PO# 733837

DIVISION	SECTION TITLE
003100	PROPOSAL FORM FOR COST OF CONSTRUCTION
006100	LIQUIDATED DAMAGES
011000	SUMMARY
012100	ALLOWANCES
012200	UNIT PRICES
012300	ALTERNATIVES
012900	PRICE AND PAYMENT PROCEDURES
013100	ADMINISTRATIVE REQUIREMENTS
013200	CONSTRUCTION PROGRESS SCHEDULE
013300	SUBMITTAL PROCEDURES
014000	QUALITY REQUIREMENTS AND TESTING
015000	TEMPORARY FACILITIES AND CONTROLS
015250	FIELD OFFICES
015750	TEMPORARY EROSION AND SEDIMENTATION CONTROL
016000	PRODUCT REQUIREMENTS
017300	EXECUTION REQUIREMENTS
017320	WASTE MANAGEMENT
017800	CLOSEOUT SUBMITTALS
022250	DEMOLITION
022300	SITE CLEARING
023610	SOIL TREATMENT FOR TERMITE CONTROL
03100	CONCRETE FORMS AND ACCESSORIES
040650	MORTAR AND MASONRY GROUT
042200	UNIT MASONRY ASSEMBLIES
060670	HIGH PRESSURE DECORATIVE LAMINATES
061000	ROUGH CARPENTRY
061140	WOOD BLOCKING AND CURBING
061600	SHEATHING
062023	INTERIOR FINISH CARPENTRY
064100	ARCHITECTURAL WOODWORK
071416	FLUID APPLIED WATERPROOFING
071900	WATER REPELLENTS
072116	PRE-ENGINEERED BUILDING BLANKET INSULATION
072119	FOAMED-IN-PLACE MASONRY WALL INSULATION
072120	THERMAL BATT INSULATION
072216	ROOF BOARD INSULATION
0722400	EXTERIOR INSULATION & FINISH SYSTEM (EIFS)
072500	WEATHER BARRIERS
074113.13	PREFORMED METAL ROOF PANELS
074213.13	PREFORMED METAL WALL PANELS
076200	FLEXIBLE FLASHING
076310	GUTTERS AND DOWNSPOUTS
079200	JOINT SEALERS AND SEALANT
079500	EXPANSION CONTROL SYSTEMS
081113	HOLLOW METAL DOORS AND PANELS
081416	FLUSH WOOD DOORS
083300	INSULATED ROLLING SERVICE DOOR
083310	OVERHEAD COILING DOORS
084113	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
087100	DOOR HARDWARE
088000	GLAZING
088300	MIRRORS
092216	NON-STRUCTURAL METAL FRAMING
092900	GYPSUM BOARD
093013	CERAMIC TILE – GENERAL
093015	GLAZED CERAMIC WALL TILE
093016	CERAMIC MOSAIC TILE
095123	ACOUSTIC PANEL CEILINGS
096519	RESILIENT TILE FLOORING
096521	RESILIENT BASE
096566	RESILIENT ATHLETIC FLOORING
099100	EXTERIOR AND INTERIOR PAINTING
102800	TOILET, BATH, AND LAUNDRY ACCESSORIES
103500	FLAGPOLE
104200	BUILDING PLAQUE
104300	DIMENSIONAL LETTERS
104410	PLASTIC ROOM IDENTIFICATION SIGNS
104413	FIRE EXTINGUISHERS, CABINETS, AND ACCESSORIES
105300	PROTECTIVE COVERS
116623	BASKETBALL EQUIPMENT
116629	CUSTOM BATTING CAGE SYSTEM
116630	NON-ELEVATED ALUMINUM ANGLE TIP-N-ROLL FRAME BLEACHERS
116653	GYMNASIUM DIVIDERS
321500	AGGREGATE SURFACING
321713	PARKING BUMPERS
321723	PAVEMENT MARKINGS
321813	SYNTHETIC TURF
323113	CJAIN LINK FENCE
323119	DECORATIVE METAL FENCES AND GATES

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PALMER PAVILION RENOVATIONS
McALLEN, TX

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Date: July 29, 2016

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STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED
PROFESSIONAL ENGINEER

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Palmer Pavilion Renovation
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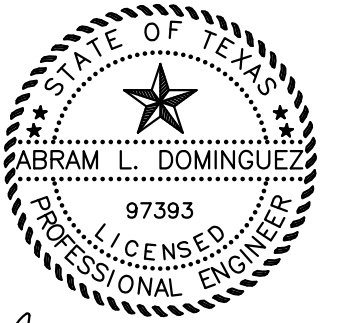
7.29.2016



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SECTION 01025 SPECIAL PROVISIONS

IN ALL CASES WHERE THESE SPECIAL PROVISIONS CONFLICT WITH THE TECHNICAL SPECIFICATION SECTIONS OR ANY OTHER DOCUMENT CONTAINED HEREIN, THESE SPECIAL PROVISIONS SHALL GOVERN.

1. The CONTRACTOR shall do all necessary excavation, trenching, demolition, grading, backfill, etc., to complete the project. All excavation is unclassified. All material removed such as concrete, broken pipe, excess backfill, etc., shall become the property of the CONTRACTOR and he shall be responsible for removing it from the site at not extra expense to the OWNER. Existing material, fencing or fixtures deemed salvageable by the ENGINEER or the OWNER shall be carefully removed and hauled to a designated location as directed by the OWNER or ENGINEER at no extra expense to the OWNER.

2. All trees, plants, grass and shrubs, except those which will be affected by construction shall be protected at all times. The areas in and adjacent to the construction site shall be restored to their original conditions after necessary fine grading is completed. The CONTRACTOR shall provide new grass of the same type removed to restore damaged areas. Only quality sandy loam topsoil shall be used for filling the top four inches of those areas damaged or filled.

3. Damages done to existing utilities, power poles, fences, signs, mailboxes, driveways, culverts, pavement, drainage systems, etc. shall be repaired by the CONTRACTOR at no cost to the OWNER, and such costs shall be subsidiary to the various unit items in the Proposal.

4. Existing lawns are to remain intact as far as practical. The CONTRACTOR shall duly restore such areas disturbed as good as or better than original condition using the same type of grass, shrubs, or cover as the original. The CONTRACTOR shall be responsible for correcting any erosion that occurs at his cost without claim for extra compensation.

5. The CONTRACTOR shall be limited only to existing property for operations and/or easements provided by the Owner. The CONTRACTOR at no extra cost to the OWNER will correct any damages done to property outside these designated work areas to its original or better conditions. It is important that the CONTRACTOR be aware of the work limits so that no damage can result to those areas outside these limits.

6. The CONTRACTOR shall submit to the ENGINEER a proposed sequence of work outline with approximate completion dates to be reviewed at the pre-construction conference. It is important that traffic be interrupted at a minimum during construction. If roadways are to be closed or detoured, the CONTRACTOR shall notify the POLICE DEPARTMENT, FIRE DEPARTMENT, EMERGENCY SERVICES, and other interested entities at least 48 hours in advance.

7. The CONTRACTOR shall be responsible for construction staking for the entire project and shall be done in accordance with the Specifications. The OWNER shall provide horizontal and vertical control.

8. The Plans show approximate locations of existing utilities including gas lines, telephone lines, power lines, water lines, sewer lines, storm sewers and irrigation lines within the vicinity. The CONTRACTOR is responsible for locating all existing utilities and shall exercise extreme care in working in the vicinity of these lines. All existing lines, whether belonging to **McAllen PUB** or Private shall remain in operation at all times. Switchover time, re-connecting new service from existing lines or services (if any) shall be kept to a minimum. Contractor shall be responsible for any re-connects, temporary or otherwise, of all water and sanitary sewer lines required to complete the project. Unless otherwise specified, payment for such items shall be subsidiary to all the various items of the bid.

9. The Contractor shall notify the Utility Companies while working in the vicinity of the corresponding private or public utility.

10. The OWNER reserves the right to add or delete quantities of items in the Proposal at the Unit Prices given.

11. The CONTRACTOR is expected to conduct his work in such a manner as to minimize any soil erosion or sediment runoff from the construction site. Earth cuts and fills shall have smooth, flat side slopes, as generally indicated on the Plans, to preclude erosion of the soil. Such operations should be, at all times, consistent with the actual need for doing the work and only to leave raw, unprotected surfaces for a minimum of time.

12. Until acceptance by the ENGINEER of any part of all of the material, as provided for in these specifications, it shall be under the charge and care of the CONTRACTOR, and he shall take every necessary precaution against injury or damage to any part of the material by action of the elements

of from the non-execution of the work. The CONTRACTOR shall rebuild, repair, restore and make good, at his own expense, all injuries or damage to any portion off the material occasioned by any of the above causes before its completion and acceptance.

13. In cases where the CONTRACTOR deems extra compensation is due him for materials not clearly covered in the contract, or not ordered by the ENGINEER as an extra item, the CONTRACTOR shall notify the ENGINEER in writing of his intention to make claim for such extra compensation before he begins the work. The CONTRACTOR shall not proceed until the OWNER, ENGINEER, and CONTRACTOR approves a written CHANGE ORDER. Failure on the part of the CONTRACTOR to give such notification or to afford the ENGINEER proper facilities for keeping strict account of actual cost shall constitute a waiver of the claim for such extra compensation. The filing of such notice by the CONTRACTOR and the keeping of costs by the ENGINEER shall not in any way be construed to prove the validity of the claim. When the work has been completed, the CONTRACTOR shall, within 10 days, file his claim for extra compensation with the ENGINEER.

14. Upon the failure of the CONTRACTOR to repair satisfactorily or to remove and replace, if so directed, rejected, unauthorized, or condemned materials immediately after receiving formal notice from the ENGINEER, the OWNER may recover for such defective materials on the CONTRACTOR'S bond, or by action in a court having proper jurisdiction over such matters, or may employ labor and equipment and satisfactorily repair or remove and replace such work and charge the cost of the same to the CONTRACTOR, which cost will be deducted from any money due him.

15. Contractor is responsible for all traffic control. All proposed routing of traffic must be approved in writing prior to implementation. All traffic control devices shall be in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD), latest edition. Unless specifically indicated in the bid proposal form, cost shall be subsidiary to the various items of the bid.

16. Saw cutting of existing asphalt or concrete for construction joints will be the only accepted method.

17. Mechanical tamping of all backfilling shall be the only accepted method as shown in the typical trench backfill details of the plans.

18. The CONTRACTOR shall warrant all work for a period of not less that one (1) year from the date

of final acceptance of the work by the Owner. CONTRACTOR is responsible for scheduling a final inspection in the presence of the OWNER, ENGINEER, and CONTRACTOR, whereupon all items must be in accordance with plans and specifications prior to final acceptance.

19. The CONTRACTOR is responsible for familiarizing himself and following all **McAllen PUB and County of Hidalgo** Standard Specifications for those items not specifically shown on the project plans or project specifications.

20. All asphalt pavement repairs shall be completed as per the construction plans and specifications. The CONTRACTOR shall not leave an area requiring repairs in excess of 1,300 square yards or in excess of 30 days, whichever is less. Owner can require immediate asphalt pavement repair should traffic conditions warrant in the opinion of the Engineer or his agent.

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02050 - DEMOLITION

PART 1 - EXECUTION

1.01 GENERAL REQUIREMENTS

A. The work includes demolition or removal of all construction indicated or specified. All materials resulting from demolition work, except as indicated or specified otherwise, shall become the property of the Contractor and shall be removed from the limits of the project. Rubbish and debris shall be removed from the project site daily. Materials that cannot be removed daily shall be stored in areas specified by the Owner.

1.02 DUST CONTROL

A. The amount of dust resulting from demolition shall be controlled to prevent the spread of dust and to avoid creation of a nuisance in the surrounding area. Use of water will not be permitted when it will result in, or create, hazardous or objectionable conditions such as ice, flooding and pollution.

1.03 PROTECTION

A. Protection of Existing Work

Before beginning any cutting or demolition work, the Contractor shall carefully survey the existing work and examine the drawings and specifications to determine the extent of the work. The Contractor shall take all necessary precautions to insure against damage to existing work to remain in place, to be reused, or to remain the property of the Owner, and any damage to such work shall be repaired or replaced at no additional cost to the Owner. The Contractor shall carefully coordinate the work of this section with all other work and construct and maintain shoring, bracing and supports, as required. The Contractor shall insure that structural elements are not overloaded and be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under any part of this contract.

B. Protection of Buildings from the Weather

All materials and equipment shall be protected from the weather at all times.

C. Protection of Trees

Trees within the project site which might be damaged during demolition and which is indicated to be left in place shall be protected by a 6-foot high fence. The fence shall be securely erected a minimum of 5-feet from

the trunk of individual trees or follow the outer perimeter of branches or clumps of trees. Any tree designated to

remain that is damaged during the work under this contract shall be replaced.

1.04 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

1.05 USE OF EXPLOSIVES

Use of explosives will not be permitted.

1.06 EXISTING FACILITIES

A. Existing structures indicated shall be removed to grade.

B. Removal of Utilities

C. Existing utilities shall be removed as indicated. When utility lines are encountered that are not indicated on the drawings the Engineer shall be notified prior to removal.

1.07 DISPOSITION OF MATERIAL

A. Title to Materials

Title to all materials and equipment to be demolished is vested in the Contractor upon receipt of notice to proceed. The Owner will not be responsible for the condition, loss or damage to such property after notice to proceed.

B. Material for Contractor Salvage

Salvage materials shall be removed from project site before completion of the Contract. Material for salvage shall not be sold on the site.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02100 - SITE PREPARATION

PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Demolition of existing site elements per Demolition Plan and/or as required for installation of new work.
B. Clearing of site.

1.02 RELATED SECTIONS:

A. Temporary erosion and sediment control during construction - Section 02150s.
B. Earthwork - Section 02200 or Section 02202 and/or Section 02222

1.03 NOTIFICATION TO OWNERS OF UTILITY LINES AND EQUIPMENT:

A. Notify any corporation, company, individual or local authority owning conduits, wires, pipes or equipment on site that is affected by work.
B. Arrange for removal or relocation of indicated items and pay any fees or costs in conjunction with removal or relocation, except as otherwise noted.
C. Cap lines in accordance with instructions of governing authorities or Owners.

1.04 PROTECTIONS:

A. Protect trees, plants and other landscape features designated to remain.

1.05 EXPLOSIVES:

A. Use of explosives is strictly prohibited.

PART 2 - PRODUCTS - NONE IN THIS SECTION

PART 3 - EXECUTION

3.01 PREPARATION:

A. Verify that abandoned utilities have been properly disconnected and capped.
B. Verify that barricades and other protective measures are in place.

3.02 CLEARING:

A. Remove existing scrub trees and shrubs, including root systems.

B. Strip and clear building areas, or areas requiring cutting or filling, free of vegetation. Leave construction areas clean, free of vegetation and debris, and ready for earthwork.
C. Remove debris and trash from site.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02102 - GENERAL CLEARING AND GRUBBING

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION OF WORK

A. Cleaning and grubbing shall consist of the removal of trees, stumps, brush, roots, vegetation, logs, rubbish, and other objectionable matter within the project site limits described in the specifications or as shown on plans.

B. Cleaning and grubbing shall be done in advance of grading operation. Grubbing may be done simultaneously with excavation, if the cuts are over 3 feet in depth and objectionable matter is removed as specified.

C. Clearing and Grubbing shall consist of the disposal of all debris resulting from the work specified herein.

1.02 PROTECTION OF ADJACENT WORK:

A. Provide protection necessary to prevent injury or damage to existing improvements, adjacent property, utilities and other facilities, and trees and plants, indicated to remain in place.

B. Protect improvements on adjoining properties and all areas outside indicated construction areas from injury or damage.

C. Restore damaged improvements to their original condition, as acceptable to the Engineer and property owners.

D. Conduct site clearing and grubbing operations to ensure minimum interference with road, streets, walks, and other adjacent, occupied or used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. Provide all required personnel, equipment, and materials required to perform the work as specified.

PART 3 - EXECUTION

3.01 CLEARING:

A. Clear all areas covered by dikes, roads, structures and embankments within project limits unless otherwise shown in plans.

B. Remove all saplings, brush, down-timber and debris unless shown or directed otherwise.

C. Use tree wound paint to treat scars, gashes or limbs stubs on trees not removed.

3.02 GRUBBING:

A. Trees, stumps, root systems, rocks and other obstructions shall be removed to the depths shown when they fall within the construction templates for the following items:

1.	Footings	18-inches below bottom of footing.
2.	Sidewalks (or other types of walks)	12-inches below bottom of walk.
3.	Roadways or Streets	24-inches below bottom of base material.
4.	Parking Areas	24-inches below bottom of base material.
5.	Grassed Areas	18-inches below top soil.
6.	Fills	24-inches below bottom of fill.

B. Blasting not permitted.

3.03 REMOVAL OF DEBRIS AND CLEANUP

A. Burn as permitted by regulating agencies or the Engineer as work progresses.

B. Unguarded fires will not be permitted.

C. Permits will be obtained, where required, for necessary burning or disposal sites.

D. Dispose of all waste materials not burned by removal from site.

E. Materials cleared and grubbed shall be the property of the Contractor and shall be his responsibility for disposal.

PART 4 - MEASUREMENT AND PAYMENT

4.01 CLEARING AND GRUBBING:

A. Clearing and Grubbing shall be measured for payment either in acres or by lump sum only for areas indicated on the plans, or as provided in the proposal and contract.

B. When not listed as separate contract pay item, Clearing and Grubbing shall be considered as incidental work, and the cost thereof shall be included in such contract pay items as are provided in the proposal contract.

C. Compensation, whether by contract pay item or incidental work will be for furnishing all materials, labor equipment, tools and in incidentals required for the work, all in accordance with the plans and these specifications.

*** * * END OF SECTION * * ***

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02110 - SITE CLEARING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK

A. Extent of site clearing is shown on drawings.

B. Site clearing work includes, but is not limited to:

1. Protection of existing trees and shrubs.

2. Removal of trees and other vegetation.

3. Topsoil stripping and storing.

4. Clearing and grubbing.

5. Removing above grade improvements.

6. Removing below grade improvements.

1.03 JOB CONDITIONS

A. Protection of Existing Improvements: Provide protections necessary to prevent damage to existing improvements indicated to remain in place.

1. Protect improvements on adjoining properties and on Owner's property.

2. Restore damaged improvements to their original condition as acceptable to parties having jurisdiction.

B. Protection of Existing Trees and Vegetation: Protect existing trees and other vegetation indicated to remain in place against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary guards to protect trees and vegetation to be left standing.

1. Water trees and other vegetation to remain within limits of contract work as required to maintain their health during course of construction operations.

2. Repair or replace trees and vegetation indicated to remain which are damaged by construction operations in a manner acceptable to Architect. Employ licensed arborist to repair damages to trees and shrubs.

3. Replace trees which cannot be repaired and restored to full growth status as determined by Arborist.

PART 2 - PRODUCTS (Not applicable to work of this section)

PART 3 - EXECUTION

3.01 SITE CLEARING

A. General: Remove trees, shrubs, grass, and other vegetation, improvements, or obstructions interfering with installation of new construction. Remove such items elsewhere on site or premises as specifically indicated. Removal includes digging out stumps and roots.

1. Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction.

B. Topsoil: Topsoil is defined as friable clay loam surface soil found in a depth of not less than 4". Satisfactory topsoil is reasonably free of subsoil, clay lumps, stones and other objects over 2" in diameter and without weeds, roots, and other objectionable material.

1. Strip topsoil to whatever depths encountered in a manner to prevent intermingling with underlying subsoil or other objectionable material.

a. Remove heavy growth of grass from areas before stripping.

b. Where trees are indicated to be left standing, stop topsoil stripping a sufficient distance to prevent damage to main root system.

2. Stockpile topsoil in storage piles in areas shown or where directed. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent wind blown dust.

3. Dispose of unsuitable or excess topsoil same as waste material, herein specified.

C. Clearing and Grubbing: Clear site of trees, shrubs, and other vegetation except for those indicated to be left standing.

1. Completely remove stumps, roots, and other debris protruding through ground surface.

2. Use only hand methods for grubbing inside drip line of trees indicated to be left standing.

3. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

4. Place fill material in horizontal layers not exceeding 6" loose depth and thoroughly compact to a density equal to adjacent original ground.

D. Removal of Improvements: Remove existing above grade and below grade improvements necessary to permit construction and other work as indicated.

1. Abandonment or removal of certain underground pipe or conduits may be shown on mechanical or electrical drawings and is included under work of those sections. Removal of abandoned underground piping or conduit interfering with construction is included under this section.

3.02 DISPOSAL OF WASTE MATERIALS

A. Burning on Owner's Property: Burning is not permitted on Owner's property.

B. Removal from Owner's Property: Remove waste materials and unsuitable and excess topsoil from Owner's property and dispose of off site in legal manner.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02150 - TEMPORARY EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION

PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Temporary measures required to control erosion and sediment during construction. This includes measures to meet the requirements of the National Pollution Discharge Elimination System (NPDES) administered by the Environmental Protection Agency (EPA).

B. Temporary hay bale dike.

C. Stabilized construction entrance.

D. Silt fence.

E. Rock check dam.

F. Sediment basin with stone and pipe outlet

G. Diversion dike.

H. Storm Water Pollution Prevention Plan (SWP3).

1.02 RELATED SECTIONS:

A. Grass seeding for slope protection and erosion control - Section 02270.

B. Site Preparation - Section 02100.

C. Earthwork - Section 02200 or Section 02202 and/or 02222

1.03 REFERENCES:

A. ASTM D3786 - Hydraulic Bursting Strength of Knitted Goods and Non-woven Fabrics. (Mullen Burst)

B. ASTM D3787 - Bursting Strength of Knitted Goods; Constant Rate of Traverse (CRT) Ball Burst Test

C. ASTM D4355 - Deterioration of Geotextiles From Exposure to Ultraviolet Light and Water

(Xenon-Arc Type Apparatus).

D. ASTM D4491 - Water Permeability of Geotextiles by Perrnittivity.

E. ASTM D4533 - Index Trapezoidal Tearing Strength of Geotextiles.F. ASTM D4632 Grab Breaking Load and Elongation of Geotextiles. (Tensile Strength).

F. ASTM D4751 - Determining the Apparent Opening Size of a Geotextile.

H. ASTM Al 16, - Zinc Coated (Galvanized) Steel Woven Wire Fence Fabric.

I. ASTM D698 - Test for Moisture Density Relations for Soils (Standard).

J. Texas Department of Transportation (TXDOT) 2004 Standard Specifications for Construction of Highways, Streets and Bridges. Measurement and payment sections do not apply. Item 432 - Rip Rap.

1.04 SUBMITTALS:

A. Procedures for Submittals: Section 01300.

B. Product Data:
1. Silt fencing.
2. Non-woven filter fabric.
3. Erosion control and revegetation mat

C. Prepare and submit a Storm Water Pollution Prevention Plan (SWP3).

D. Inspection Reports and Certificates:
1. Submit period inspection reports and certificates required for SWP3.
2. Submit Contractor/Subcontractor certifications required for SWP3.

E. Submit revisions or modifications to the erosion and sediment control plan and SWP3.

1.05 MAINTENANCE:

A. Maintain erosion control devices as necessary to comply with NPDES. This includes any revisions or modifications to the plan. Any work required for modifications, revisions and maintenance shall be the responsibility of the Contractor and shall -not be a basis for additional compensation.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. Hay bales, if used, shall weigh a minimum of (50) pounds and shall be at least thirty (30) inches in length. Bales shall be composed entirely of vegetable matter and be free of seeds. Binding shall be either wire or nylon string, jute or cotton binding is unacceptable. Bales shall be used for not more than two months before being replaced. However, if weather conditions cause biological degradation of the hay bales, they shall be replaced sooner than the two month time period to prevent a loss of structural integrity of the hay bale dike.

B. Stone material at all drainage structures shall consist of stone rip-rap conforming to TXDOT Standard Specification Item 432 and shall have gradation and be placed as shown on the plans and in a layer of at least 24 inches thick. Stone material for rock check dams shall consist of only well graded crushed rock, 4-8 inches in diameter, and shall be placed as detailed on plans. Stone material for stabilized construction exit shall consist of 3" to 5" crushed rock mixed with Type "A"" Flexbase to create a drivable surface and shall be placed as shown on the plans.

C. Geotextile Fabrics shall be a non-woven polypropylene fabric designed specifically. for use as a soil filtration media. Fabric shall have an approximate weight of 8 oz/sqyd.

D. Geotextile Silt Fence Fabric shall be a nylon reinforced polypropylene woven fabric having a reinforcing cord running the entire length to the top edge of the fabric.

Representative Manufacturer Mirafi, Inc. sift fence, Amoco (2130) or owner approved equal.

E. Fence Posts for Sift Fence of sufficient length and strength to support the silt fence system.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION:

A. Submit SWP3 and the erosion and sediment control plan and modify as required for the Contractor's construction sequence. Modifications shall maintain conformance with the Contractor's storm water pollution prevention plan and the requirements of NPDES. Work and materials required for installation, modification and maintenance of the Erosion Control System shall be incidental to the contract.

B. Locate and protect survey horizontal and vertical control.

3.02 TEMPORARY HAY BALE DIKE:

A. Install where shown on the plans or as needed for erosion control.

B. Hay bales shall be embedded a minimum of four (4) inches and securely anchored using 3/8. inch diameter steel stakes or 2" x 2" wood stakes driven through the bales into the ground a minimum of six (6) inches. Hay bales are to be placed end to end directly adjacent to one another leaving no gap between them.

C. Hay bale dikes are to be used in locations receiving overland sheet flow only.

3.03 STABILIZED CONSTRUCTION EXIT

A. A temporary construction exit shall be installed at any point where traffic will be leaving the construction site to a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction exit is to reduce or eliminate the tracking or flowing of sediment onto public rights-of-way. The exit must be properly graded or incorporate a drainage swale to prevent runoff from leaving the construction site. The length of the exit shall be as required, but not less than 100 feet and the width shall be at least 20 feet. The stabilized exit shall be constructed of rock as described in 2.1.B. and shall be completely underlined with geotextile filter fabric described in 2.1.C, Value 1.

B. The temporary construction exit shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or clean out of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately by the Contractor.

C. When necessary, wheels must be washed or brushed to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch or watercourse using approved methods.

3.04 SILT FENCE:

A. Silt Fence: Shall consist of nylon reinforced polypropylene woven fabric supported by posts set a minimum depth of 18 inches and spaced not more than 6 feet on center. A 6-inch wide trench is to be cut 6 inches deep at the toe of the fence on the uphill side to allow the fabric to be laid below the surface and back filled with gravel. Fabric shall have a 6-inch, double overlap securely fastened at a post at abutting ends, and shall be joined such that no leakage or bypass occurs. Remove accumulated sediment when the depth of sediment reaches 6 inches.

3.05 ROCK CHECK DAM:

A. Rock Check Dams shall be constructed at locations shown on the plans and in swales as needed to reduce velocity in swales. Geotextile fabric as described in 2.1.C., Value I shall be placed beneath the rock and shall conform to these specifications. Rock shall conform to these specifications.

3.06 DIVERSION DIKE:

A. Diversion dikes, if used by the Contractor, shall be installed prior to and maintained for the duration of construction and shall intercept no more than five (5) acres of runoff. Dikes shall have a minimum top width of 2'-0" and a minimum height Of Compacted fill of 18" measured from the top of the existing ground at the upslope toe to top of the dike and having side slopes of 3:1 or flatter. The channel which is formed by the dike must have a minimum slope of one (1) percent for the entire length to an outlet. When the slope exceeds three (3) percent, or velocities exceed one foot per second (regardless of slope), stone stabilization (Type "Am rip-rap) is required. Plant grass on dikes not requiring stone stabilization.

3.07 STORM WATER POLLUTION PREVENTION PLAN (SWP3):

A. The Contractor is required to prepare the SWP3 required for this project.

3.08 NOTICE OF INTENT (NOI), NOTICE OF TERMINATION (NOT):

A. Contractor shall submit a Notice of Intent (NOI) at least 48 hours prior to the start of construction.

B. Contractor shall submit a Notice of Termination (NOT) as required by the NPDES regulations.

3.09 At the close of this contract the Contractor shall remove the temporary erosion control devices when permanent facilities are in place.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02200 - EARTHWORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK

A. Extent of earthwork as indicated on drawings, and includes:

1. Preparation of subgrade for flatwork, pavements and all other earthwork installation.

2. Removal and Replacement of Top Soil.

3. This section “does not include” work beneath foundations or structural fill.

D. Definitions:
“Excavation” consists of removal of material encountered to subgrade elevations indicated and subsequent disposal of materials removed.
“Density” is referred to as a percentage of the ASTM D698. Standard Proctor Density

1.03 QUALITY ASSURANCE

A. Codes and Standards: Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

B. Testing and Inspection Service: Employ, at Contractor’s expense, testing laboratory to perform soil testing and inspection service for quality control testing during earthwork operations. Laboratory to be approved by Architect and Owner.

1.04 SUBMITTALS

A. Test Reports-Excavating: Submit following reports directly to Architect/Engineer from the testing services with a copy to the Contractor and Owner.

1. Test reports on borrow material. (as required)

2. Field density test reports.

3. One optimum moisture-maximum density curve for each type of soil encountered.

B. Site Information: Data on indicated subsurface conditions are not intended as representations or warranties of accuracy or continuity between soil bearings. It is expressly understood that Owner will not be responsible for interpretations or conclusions drawn therefrom by Contractor. Data is made available for convenience of Contractor.

1. Additional test borings and other exploratory operations may be made by Contractor at no cost to Owner.

C. Existing Utilities: Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations.

1. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult Utility Owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of Utility Owner.

2. Do not interrupt existing utilities serving facilities occupied and used by Owner or others during occupied hours except when permitted in writing by Architect and Owner and then only after acceptable temporary utility services have been provided.

a. Provide a minimum of forty eight (48) hour notice to Owner and receive written notice to proceed before interrupting any utility.

3. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.

D. Use of Explosives: The use of explosives is not permitted.

E. Protection of Persons and Property: Barricade open excavations occurring as part of this work and post with warning lights.

1. Operate warning lights as recommended by authorities having jurisdiction.

2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

3. Perform excavations within drip line of large trees to remain by hand and protect root system from damage or dryout to the greatest extent possible. Maintain moist condition for root system and cover exposed roots with burlap. Paint root cuts of 1" diameter and larger with emulsified asphalt tree paint.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

A. Definitions:

1. Satisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups GW, GP, GM, SM, SW, and SP.

2. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, crushed slag, natural or crushed sand.

3. Backfill and Fill Materials: Satisfactory soil materials free of clay, rock, or gravel larger than 2" in any dimension, debris, waste, frozen materials, and other deleterious matter and having a PI < 20.

PART 3 - EXECUTION

3.01 EXCAVATION

A. Excavation is Unclassified and includes excavation to subgrade elevations indicated regardless of character of materials and obstruction encountered.

B. Unauthorized Excavation:

1. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Architect/Engineer. Unauthorized excavation, as well as remedial work directed by the Architect/Engineer, shall be at Contractor's expense.

2. Under footings, or retaining walls, fill unauthorized excavation by extending indicated bottom elevation of footing or base to excavation bottom without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position when acceptable to Architect/Engineer.

3. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavation of same classification, unless otherwise directed by Architect/Engineer.

C. Top Soil:

1. Contractor shall strip 6" of existing topsoil and stockpile on-site at locations specified by owner. The topsoil shall be uniformily spread and graded after earthwork is complete.

2.

D. Additional Excavation:

1. When excavation has reached required subgrade elevations, notify the Architect/Engineer who will make an inspection of conditions.

2. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated material as directed by Architect/Engineer.

3. Removal of unsuitable material and its replacement as directed will be paid on basis of contract conditions relative to changes in work.

D. Stability of Excavations:

1. Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
2. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

F. Trench Safety Systems:

1. Provide materials for shoring and bracing such as sheet piling, uprights, stringers, and cross-braces in good serviceable condition.

2. Trench shoring and bracing or trench boxes shall be required for trenches exceeding 5 foot in depth.

3. Maintain shoring and bracing or trench boxes in excavations regardless of time period excavations will be open.

G. Dewatering:

1. Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding property.

2. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well pints, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavation.

3. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavation to collecting or run-off areas. Do not use trench excavations as temporary drainage ditches.

H. Material Storage:

1. Stockpile satisfactory excavated materials where directed, until required for backfill or fill. Place, grade, and shape stockpiles for proper drainage.

2. Locate and retain soil materials away from edge of excavations. Do not store within drip line of trees indicated to remain.

3. Dispose of excess soil material and water materials unless otherwise shown on plans.

I. Excavation for Structures: (refer to plans)

1. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10', and extending a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of services, other construction, and for inspection.

2. In excavating for footing and foundation, take care not to disturb bottom of excavation. Excavate by hand to final grade just before concrete reinforcement is placed. Trim bottoms to required lines and grades to leave solid base to receive other work.

J. Excavation for Pavements:

1. Cut surface under pavements to comply with cross sections, elevations and grades as shown.

K. Excavation for Trenches:

1. Dig trenches to the uniform width required for particular item to be installed, sufficiently wide to provide ample working room. Provide 6" to 9" clearance on both sides of pipe or conduit.

3. Where rock is encountered, carry excavation 6" below required elevation and backfill with a 6" layer of crushed stone or gravel prior to installation of pipe.

5. For RCP Storm Sewer Pipe 12" or larger in nominal size provide a 4" thick embedment material. Approved embedment material shall include sand, blow sand or similar material. No crusher fines will be allowed for embedment material.

6. Except as otherwise indicated, excavate for exterior water bearing piping (water, sewer, gas and drainage) so top of piping is not less than 3'-6" below finished grade.

7. Grade bottoms of trenches as indicated, notching under pipe bells to provide solid bearing for entire body of pipe. Backfill trenches with concrete where trench excavations pass within 18" of column or wall footings and which are carried below bottom of such footings, or which pass under wall footings. Place concrete to level of bottom of adjacent footing.

8. Do not backfill trenches until tests and inspections have been made and backfilling authorized by Architect/Engineer. Use care in backfilling to avoid damage or displacement of pipe systems.

9. For piping or conduit less than 2'-6" below surface of roadways, provide 4" thick concrete base slab support. After installation and testing of piping or conduit, provide minimum 4" thick encasement (sides and top) of concrete prior to backfilling or placement of roadway subbase.

L. Cold Weather Protection: Protect excavation bottoms against freezing when atmosphere temperature is less than 35° F. (1° C.).

3.02 COMPACTION

A. General: Control soil compaction during construction providing minimum percentage of density specified for each area classification indicated below.

B. Percentage of Maximum Density Requirements:

1. Structures, Building Slabs and Steps: Compact top in accordance with Structural Drawings.

2. Roadways, parking areas and sidewalks: Compact subgrade and each layer of backfill or fill material at 95% standard Proctor ASTM D-698-91 at a moisture content of no more than 3% above optimum moisture for cohesive material or 95% maximum density for cohesionless material.

3. Open areas: Compact subgrade and each layer of backfill or fill material at 90% standard Proctor ASTM D-698-91 at a moisture content of no more than 3% above optimum moisture for cohesive material or 90% maximum density for cohesionless material.

C. Moisture Control:

1. Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade or layer of soil material to prevent free water appearing on surface during or subsequent to compaction operations.

2. Remove and replace or scarify and air dry soil material that is too wet to permit compaction to specified density.

3. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing until moisture contact is reduced to a satisfactory value.

3.03 BACKFILL AND FILL

A. Under grassed areas, use satisfactory excavated or borrow material.

B. Under roadway, parking and flatwork use backfill and fill materials that comply with 2.01-3

C. Under steps, use subbase material.

D. Under building slabs (refer to structural drawings / specifications)

E. Under piping and conduit, use subbase material where subbase is indicated under piping or conduit; shape to fit bottom 90° of cylinder.

F. Backfill excavations as promptly as work permits, but not until completion of the following:

1. Acceptance of construction below finish grade including where applicable, dampproofing, waterproofing, perimeter insulation, inspection, testing, approval, and recording locations of underground utilities.

2. Removal of concrete formwork.

3. Removal of shoring and bracing and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities, or leave in place if required.

4. Removal of trash and debris.

5. Permanent or temporary horizontal bracing is in place on horizontally supported walls.

G. Ground Surface Preparation:

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.

2. When existing ground surface has a density less than that specified under “Compaction” for particular area classification, break up ground surface, pulverize, moisture condition to optimum moisture content, and compact to required depth and percentage of maximum density.

H. Placement and Compaction:

1. Place backfill and fill materials in layers not more than 8” in loose depth for material compacted by heavy compaction equipment, and not more than 4” in loose depth for material compacted by hand operated tampers.

2. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture contact. Compact each layer to required percentage of maximum density. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

3. Place backfill and fill materials evenly adjacent to structures, piping, or conduit to required elevations. Take care to prevent wedging action of backfill against structures or displacement of piping or conduit by carrying material uniformly around structure, piping or conduit to approximately same elevation in each lift.

3.04 GRADING

A. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated, or between such points and existing grades.

B. Grading Outside Building Lines:

1. Grade areas adjacent to building lines to drain away from structures and to prevent ponding.

2. Finish surfaces free from irregular surface changes, and as follows:

a. Lawn or Unpaved Areas: Finish areas to receive topsoil to within not more than 0.10' above or below required subgrade elevations.

b. Sidewalks and Flatwork: Shape surface of areas under walks to line, grade, and cross section, with finish surface not more than 0.10' above or below required subgrade elevation.

c. Pavements: Shape surface of areas under pavement to line, grade, and cross section, with finish surface not more than 1/2" above or below required subgrade elevation.

C. Grading Surface of Fill under Building Slabs: Grade smooth and even, free of voids, compacted as specified, and to required elevation. Provide final grades within a tolerance of 1/2" when tested with a 10' straightedge.

3.05 FIELD QUALITY CONTROL

A. Quality Control Testing During Construction: Allow testing service to inspect and approve subgrades and fill layers before further construction work is performed.

1. Roadways, Parking Areas and Building Slab Subgrade: Make at least one (1) field density test of subgrade for every 20,000 sq. ft. of paved area or building slab, but in no case less than three (3) tests. In each compacted fill layer, make one (1) field density test for every

10,000 sq. ft. of overlaying building slab or paved area, but in no case less than three (3) tests.

2. All other areas: In each compacted fill layer, make at least one (1) field density test for every 50,000 sq. ft. of fill area, but in no case less than two (2) tests.

If in the opinion of the Architect/Engineer based on testing service reports and inspection, subgrade or fills which have been placed are below specified density, provide additional compaction and testing at no additional expense.

3.07 MAINTENANCE

A. Protection of Graded Areas:

1. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

2. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

C. Settling: Where settling is measurable or observable at excavated areas during general project warranty period, remove surface (pavement, lawn, or other finish), add backfill material, compact and replace surface treatment. Restore appearance, quality, and condition of surface or finish to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.08 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Removal from Owner's Property: Remove waste materials, including unacceptable excavated material, trash and debris, and dispose of it off Owner's property.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02221 - TRENCH EXCAVATION, BACKFILL, AND COMPACTION

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION OF WORK

A. Excavation, shoring, dewatering, pipe bleeding, trench backfill, compaction, grading and cleanup of all pipeline trenching for the project.

B. All work must be done in accordance with these specifications and the safety requirements of the State and OSHA Standards.

1.02 JOB CONDITIONS

A. Site Acceptance

1. Accept site in condition existing during Contract time frame.

2. Ground water/surface water found during construction are conditions of the contract and responsibility of Contractor.

B. Adverse Weather

1. Place no backfill that is excessively wet or frozen.

2. Place no backfill in excessively wet or frozen trenches.

PART 2 - PRODUCT

2.01 PIPE BEDDING AND BACKFILL

A. The type of bedding shall be stated on the Plans or in the Special Provisions of the contract document. Determination of source of materials for bedding and backfill to meet the stated conditions shall be responsibility of Contractor, but use of such materials shall be subject to approval of Engineer.

B. Excavated Material Backfill

1. Excavated material may be used in the trench backfill, provided that all hard rock and stones having any dimensions greater than 6" and frozen earth debris and roots larger than 2" are removed for the initial backfill. Engineer must approve use of excavated backfill material as bedding material.

C. Select Backfill

1. Select Backfill shall be gravel, fine rock cuttings, sand, sandy loam or loam, free from excessive clay. Rock cuttings shall have no dimensions greater than 2 inches. Engineer must approve select backfill.

D. Sand Backfill

1. Sand backfill shall be clean, hard, durable, uncoated grains, free from clay lumps and organic material. All materials must pass a No. 8 Sieve.

E. Granular Backfill

1. Granular backfill shall be free flowing, such as sand or hydraulically graded stone fines, or mixed sand and gravel, or sandy loam. The material shall be free from lumps, stones over 2 inches in diameter, clay and organic matter.

F. Controlled Density Fill

1. Use high slump mixture of portland cement, fly ash and fine aggregate formulated, licensed and marketed as K-Krete or equal. Provide mixture with minimum 28-day compressive strength of 70 psi with no measurable shrinkage or surface settlement.

2.02 CRADLING ROCK

A. Use crushed rock or stone with 70-100% passing 1½ inch sieve and no more than 50% passing 1 inch sieve.

2.03 SHEETING, SHORING AND BRACING

A. Use sound timber or structural steel.

B. Use shapes and sizes as required.

PART 3 - EXECUTION

3.01 GENERAL

A. Dewatering

1. Execute work "dry". No pipe or conduits shall be laid or concrete poured on excessively wet soil.

2. Prevent surface water from flowing into excavation.
3. Provide equipment for handling water encountered as required. Obtain approval of proposed method of dewatering from the Engineer.

4. No Sanitary sewer shall be used for disposal of trench water.

B. Protection of Existing Utilities:

1. Notify all utilities of location and schedule of work.

2. Locations and elevations of utilities shown on plans are to be considered approximate only. Notify utility owners and Engineer of conflicts between existing and proposed facilities.

3. Repair, relay or replace existing utilities damaged, destroyed or disrupted during work. Unless specified otherwise, replacement will be at the Contractors expense.

C. Sheeting, Shoring and Bracing

1. All sheeting, shoring, and bracing shall be in accordance with these specifications and the safety requirements of the State and OSHA Standards.

2. Provide as necessary, to hold walls of excavation, prevent damage to adjacent structures, and to protect workmen and property.

3. Leave sheeting and shoring in place where removal might cause damage to persons or work or as otherwise indicated on drawings.

4. When movable trench shield is used below spring line of pipe, it shall be lifted prior to any forward movement to avoid pipe displacement.

D. Changes in Grade

1. Grades may be adjusted 1½ feet (plus or minus) from plan grades to suit unforeseen construction conflicts or conditions with approval of Engineer.

2. No additional compensation will be made for such changes.

3.02 EXCAVATION AND TRENCHING

A. General

1. Method of excavation is Contractor's option.

2. Excavate any areas around trees, structures and utilities by hand.

3. Stockpile and replace topsoil to a minimum of 8-inches for surface restoration in grassed or agricultural areas.

B. Trench Characteristics

1. Depth

   a. As indicated for pipe installation to lines and grades required with proper allowance for thickness of pipe and type of bedding specified or indicated.

2. Width

   a. Keep width of trench as narrow as possible with adequate room for backfilling and jointing.

   b. Maximum width as follows:

Pipe Size Inches	Maximum Trench Width
4	2-feet 0-inches
6	2-feet 0-inches
8	2-feet 4-inches
10	2-feet 4-inches
12	2-feet 6-inches
15	2-feet 9-inches
18	3-feet 0-inches
Over 18	Pipe O.D. + 12-inches

3. Trench walls must be vertical below top of pipe and may be vertical or sloped above pipe to conform to excavating codes.

2. Provide bell holes for each pipe joint where pipe bears on undisturbed earth.

3. Trench bottom shall be free of large stones and other foreign material.

3.03 SOFT, SPONGY OR UNSTABLE MATERIALS

A. Stop work and notify Engineer.

B. Perform remedial work as directed.

C. If material is judged unsuitable and removal is authorized, remove and replace with trench stabilizing material as directed by Engineer.

3.04 ROCK EXCAVATION

A. Excavate any rock to maintain minimum 6-inch clearance around pipe.

B. Dispose of rock material not suitable for backfill as directed by Engineer.

C. Use of explosives not permitted without prior written authorization from owner and Engineer.

D. Provide Special Hazard Insurance covering liability for blasting operations.

3.05 BEDDING

A. Place after bottom of trench has been excavated to proper depth and grade.

B. Place, compact and shape bedding material to conform to barrel of pipe to insure continuous firm bedding for fill length of pipe.

C. Provide bedding as described in following table unless indicated otherwise on Plans or in Special Provisions.

Pipe Material	Minimum Bedding Class
1. Vitrified Clay Pipe	Class C*
2. Non-reinforced Concrete Pipe	Class C*
3. Reinforced Concrete Pipe	Class D*
4. Ductile Iron Pipe	Class D*
5. Steel Cylinder	Class C*
6. Flexible or Composite Pipe	Class 1**

*Refers to standard detail
**Refers to standard detail,

3.06 TRENCH BACKFILL

A. Use excavated material backfill (2.01B) unless otherwise specified.

B. Use Sand Backfill for all trenches within 5 feet of buildings and beneath walks, parking areas, paved streets or existing exposed utilities.

C. Initial Backfill

1. Place after pipe has been bedded and checked for alignment, grade and internal obstructions.

2. Carry out in an orderly fashion after authorization to cover pipe has been given.

3. Allow no more than 300 feet of trench to be open at one time.

4. Do not backfill until concrete or mortar has sufficiently cured.

5. Record location of connections and appurtenances before backfilling.

6. Place by hand and hand tamp to not less than 12-inches above top of pipe, in approximately 4-inch layers.

7. Backfill simultaneously on both sides of pipe to prevent displacement.

8. Place cushion of 4-feet above pipe envelope before using heavy compacting equipment.

D. Subsequent Backfill

1. Place backfill into trench at an angle so that impact on installed pipe is minimized.

2. Compaction of all backfill material shall be performed in a manner that shall not crack, crush, and/or cause the installed pipe to be moved from the established grade and/or alignment.

3. Area under or within 5-feet of pavement; and under or within 2-feet of utilities, buildings, or walks shall be mechanically compacted to the top of the subgrade in 6-inch (8 inch loose measure) lifts to a minimum of 95 % Standard Proctor Density.

4. Areas not subject to vehicular traffic shall be backfilled in layers not more than 12-inches in depth, loose measure, and mechanically compacted.

5. Structural and non structural backfill will be mechanically compacted. Compaction method at discretion of Contractor with following exceptions:

    a. If in Owner's opinion compaction method presents potential damage to pipe, it will not be allowed.

    b. Flooding or water jetting may be permitted only if a geotechnical report justifying the use of water jetting is submitted to the Engineer by a qualified laboratory and the Engineer approves.

6. Mound excavated materials in piles no greater than 6-inches in height in open areas only.

7. Fill upper portion of trench with topsoil as specified hereinbefore.

E. Controlled Density Fill

1. Use where shown on plans.

2. Provide suitable forms to limit volume of control density fill material.

3. Prevent flow of material into existing drain lines.

4. Protect exposed utility lines during placement.

5. Place material in accordance with suppliers' written recommendations unless directed otherwise by Engineer.

3.07 EXCESS MATERIAL

A. Store excess excavated material where directed by Engineer.

3.08 TESTING

A. Unless specified elsewhere, testing will be responsibility of Owner.

B. Standard Proctor Density

1. ASTM D698.

2. One (1) required for each type of material encountered.

C. In Place Density

1. ASTM D1556 (Sand Cone)

2. ASTM D2167 (Balloon)

3. ASTM D3017 (Nuclear)

D. One (1) test per 250 linear feet of trench on alternating lifts, with a minimum of three tests per visit, for non-structural areas. One (1) test per 100 linear feet of trench on alternating lifts, with a minimum of three tests per visit, for structural areas.

E. Contractor will be responsible for any costs associated with testing performed as a result of failed tests

PART 4 - MEASUREMENT AND PAYMENT

4.01 TRENCH EXCAVATION

A. Trench excavation shall be considered incidental to pipeline installation.

B. Payment shall be made at the contract unit price per cubic yard only if a bid item is established in the contract.

4.02 BACKFILL

A. Payment for backfill shall be made at the contract unit price per cubic yard only if a separate bid item is established in the contract.

B. No allowance for waste shall be made.

C. If Engineer orders an initial backfill material other than that specified in contract, it shall be paid for as an extra in price per cubic yard as compacted in place, EXCEPT if a higher class embedment is ordered by Engineer because the Contractor has over-excavated the trench width.

D. If the Engineer orders the excavated material to be removed and disposed of and replaced with another material and a separate bid item is not established as a bid item, the material shall be paid as an extra.

E. If the Contractor fails to compact the backfill to the density requirements, the Engineer may order the material removed and replaced at no cost to the Owner.

F. The disposal of rejected material shall be at no cost to the Owner.

*** * * END OF SECTION * * ***

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02223 - FLEXIBLE BASE

PART I - GENERAL

1.01 GENERAL DESCRIPTION OF WORK:

A. This work shall consist of furnishing and placing a foundation course for surface courses or for other base courses.

B. Flexible base shall be composed of either caliche (argillaceous limestone, calcareous or calcareous clay particles, with or without stone, conglomerate, gravel, sand or other granular materials), crushed stone, gravel, iron ore topsoil, shell, or crushed slag.

C. Flexible base shall be constructed as specified herein in one or more courses in conformance with the details, lines and grades shown on the plans, and as established by the ENGINEER.

PART 2 -PRODUCTS

2.01 MATERIALS:

A. Materials for flexible base shall be crushed or uncrushed as necessary to comply with the requirements hereinafter specified.

B. Materials shall consist of durable, coarse aggregate particles mixed with approved binding materials.

2.02 LIME STABILIZATION:

A. Where shown on the plans, or directed by the ENGINEER, material for flexible base shall be lime stabilized in accordance with Texas Department of Transportation (TXDOT) 2004 Standard Specifications for Construction of Highways, Streets and Bridges. Measurement and payment sections do not apply. Item 260 – Lime Treatment (Road-Mixed).

2.03 TYPES:

A. Type A - Crushed or broken aggregate (excluding gravel aggregate).

B. Type B - Gravel Aggregate

C. Type C - Iron Ore Topsoil

D. Type D - Shell Aggregate with Sand Admixture

E. Type E - Shell Aggregate with Sand and Caliche Admixture

F. Type F - Caliche

G. Type G - Crushed Slag

H. Unless otherwise noted on the plans or directed by the ENGINEER, the CONTRACTOR may use any one type of these types provided the material used meet the requirements set forth in the specification test limits herein.

2.04 GRADES:

A. Unless otherwise shown on the plans or directed by the ENGINEER, the final course of base material shall consist of Grades 1,2,3, or 4, as specified in Table 02601-1.

B. Base courses or subbase materials, unless otherwise noted on the plans or directed by the ENGINEER, may consist of Grades 1, 2, 3, or 4, as specified in Table 02601-1.

C. All grades shall, when tested in accordance with standard laboratory test procedures, meet the physical requirements set forth in Table 02601-1.

D. Testing of flexible base materials shall be in accordance with the following test procedures:

TEST	TESTING PROCEDURE
Preparation for soil constants and sieve analysis	TEX-101-E
Liquid Limit	TEX-104-E
Plastic Limit	TEX-105-E
Plasticity Index	TEX-106-E

Sieve Analysis	TEX-110-E
Wet Ball Mill	TEX-116-E
Triaxial Test	TEX-117-E (Part I or II)

E. Unless otherwise specified on the plans, samples for testing the material for Soil constants, Gradation and Wet Ball Mill shall be taken prior to the compaction operations.

F. Unless otherwise specified on the plans, samples for triaxial tests shall be taken from the stockpile or from production, as directed by the ENGINEER, where stockpiling is required and from production where stockpiling is not required.

TABLE 02223-1

PHYSICAL REQUIREMENTS FOR FLEXIBLE BASE MATERIALS

	GRADES			
TYPES	Grade 1: (Triaxial class 1) Min. compressive strength, psi: 45 at 0 psi lateral pressure and 175 at 15 psi lateral pressure	Grade 2: (Triaxial Class 1 to 2.3) Min. compressive strength, psi: 35 at 0 psi lateral pressure and 175 at 15 psi lateral pressure	Grade 3: (Unspecified Tri axial Class)	Grade 4: (Unspecified Tri axial Class)
TYPE A Crushed or. Broken Aggregate (excluding gravel aggregate)	Retained on % Sq. Sieve 1-3/4".....0 7/8"....10-35 3/8"....30-50 No. 4....45-65 No. 40....70-85 Max LL....35 Max PI....10 Wet Ball Mill Max Amt ....40 Max Increase in Passing No. 40....20	Retained on % Sq. Sieve 1-3/4"....0-10 No. 4....45-75 No. 40....60-85 Max LL....40 Max PI....12 Wet Ball Mill Max. Amt....50 Max Increase in Passing No. 40....20	Retained on % Sq. Sieve 1-3/4"....0-10 No. 40....60-85 Max LL....45 Max PI....15 Wet Ball Mill Max Amt....55 Max Increase in Passing No. 40....20	As Shown on Plans

TYPE B Gravel Aggregate	Retained on % Sq. Sieve 1-3/4"……....0-10 No. 4.....…30-75 No. 40..…70-85 Max LL....…...35 Max PI.....…..12	Retained on % Sq. Sieve 1-3/4".....……0-5 No. 4.....…..30-75 No. 40.…..65-85 Max LL.....…..35 Max PI.....…...12	As Shown On Plans
TYPE C Iron Ore Topsoil	Retained on % Sq. Sieve 2-1/2".....…….0 No. 40.....…50-85 Max LL....…...35 Max PI.....….12	Retained on % Sq. Sieve 2-3/4".....……0 No. 40.....…45-85 Max LL....…...35 Max PI.....…..12	As Shown on Plans
TYPE D Sand-Shell	Retained on % Sq. Sieve 1-3/4".....…..0-10 No. 4.....….45-65 No. 40..…50-70 Max LL....…...35 Max PI.....….12	Retained % Sq. Sieve 1-3/4".....……..0 No. 40.....45-65 Max LL.....….35 Max PI.....…,12	As Shown on Plans
TYPE E Shell with Sand and Caliche	Retained % Sq. Sieve 1-3/4".....0 No. 40.....45-65 Max LL.....35 Max PI.....10	Retained % Sq. Sieve 1-3/4".....0 No. 40.....45-65 Max LL.....35 Max PI.....12	As Shown on Plans
TYPE F Caliche	Retained % Sq. Sieve 1-3/4".....0 No. 4.....45-75 No. 40.....50-85 Max LL.....40 Max PI.....12	Retained % Sq. Sieve 1-3/4".....0 No. 40.....50-85 Max LL.....40 Max PI.....12	As Shown on Plans
TYPE G Crushed Blast Fur- nace Slag			As Shown on Plans

G. Materials exhibiting reasonably close conformity with the specified gradation and plasticity index are defined by the following criteria:

1. The ENGINEER may accept the material, providing not more than 2 of 10 consecutive gradation tests performed are outside the specified limits on any individual or combination of sieves by no more than 5% and where no two consecutive tests are outside the specified limits.

2. The ENGINEER may accept the material providing not more than 2 of 10 consecutive plasticity index samples tested are outside the specified limit by no more than two points and where no two consecutive tests are outside the specified limit.

2.05 STOCKPILING:

A. When specified on the plans, the material shall be stockpiled prior to delivery on the road. The stockpile shall be not less than the height indicated and shall be made up of layers of material not to exceed the depth shown on the plans.

B. After a sufficient stockpile has been constructed as specified on the plans, the CONTRACTOR may proceed with loading from the stockpile for delivery to the road.

C. In loading from the stockpile for delivery to the road, the material shall be loaded by making successive vertical cuts through the entire depth of the stockpile.

D. If the CONTRACTOR elects to produce the Type A material from more than one material or more than one source, each material shall be crushed separately and placed in separate stockpiles so that at least 75 percent of the material in the course aggregate stockpiles will be retained on the No. 4 sieve and at least 70 percent of the material in the fine aggregate stockpile will pass the No. 4 sieve.

E. The materials shall be combined in a central mixing plant in the proportions determined by the ENGINEER to produce a uniform mixture which meets all of the requirements of the specification. In the event that combinations of the materials produced fail to meet all of the specification requirements, the CONTRACTOR will be required to secure other materials which will meet specifications requirements.

F. The central mixing plant shall be of either the batch or continuous flow type, and shall be equipped with feeding and metering devices which will add the materials into the mixer in the specified quantities.

G. Mixing shall continue until a uniform mixture is obtained.

PART 3 - EXECUTION

3.01 PREPARATION OF SUBGRADE:

A. The roadbed shall be excavated and shaped in conformity with the typical sections shown on the plans and to the lines and grades as established by the ENGINEER.

B. All unstable or otherwise objectionable material shall be removed from the subgrade and replaced with approved material.

C. All holes, ruts and depressions shall be filled with approved material and, if required, the subgrade shall be thoroughly wetted with water and reshaped and rolled to the extent directed in order to place the subgrade in an acceptable condition to receive the base material.

D. The surface of the subgrade shall be finished to line and grade as established and in conformity with the typical section shown on plans. Any deviation in excess of 1/2 inch in cross section and in a length of 16-feet measured longitudinally shall be corrected by loosening, adding or removing material, reshaping and recompacting by sprinkling and rolling.

E. Sufficient subgrade shall be prepared in advance to insure satisfactory execution of the work.

F. Material excavated in the preparation of the subgrade shall be utilized in the construction of adjacent shoulders and slopes or otherwise disposed of as directed. Any additional material required for the completion of the shoulders and slopes shall be secured from sources indicated on plans or as directed by the ENGINEER.

3.02 PLACEMENT OF FIRST COURSE - TYPE A, TYPE B, TYPE C, TYPE F, AND TYPE G MATERIAL:

A. Immediately before placing the base material, the subgrade shall be checked as to conformity with grade and section.

B. The material shall be delivered in approved vehicles of a uniform capacity, and it shall be the charge of the CONTRACTOR that the required amount of specified material shall be delivered to each 100-foot station.

C. Material deposited upon the subgrade shall be spread and shaped the same day.

D. In the event that inclement weather, or other unforeseen circumstances, render the spreading of the material during the first 24-hour period impractical, the materials shall be scarified and spread as directed by the ENGINEER.

E. The material shall be sprinkled, if directed, and shall then be bladed, dragged and shaped to conform to typical sections as shown on plans.

F. All areas and "nests" of segregated coarse or fine material shall be removed and replaced with well graded material, as directed by the ENGINEER.

G. If additional binder is considered desirable or necessary after the material is spread and shaped, it shall be furnished and supplied in the amount directed by the ENGINEER. Such binder material shall be carefully and evenly incorporated with the material in place by scarifying, harrowing, brooming or by other approved methods.

H. The course shall be compacted by methods of compaction hereinafter specified as the "Ordinary Compaction" method or the "Density Control" method of compaction as indicated on the plans, or as directed by the ENGINEER.

1. When the "Ordinary Compaction" method is to be used, the following provisions shall apply:

   a) The course shall be sprinkled as required and rolled as directed until a uniform compaction is secured. Throughout this entire operation, the shape of the course shall be maintained by blading. Upon completion, the surface shall be smooth and in conformity with the typical sections shown on plans and the established lines and grades.

   b) In the area on which pavement is to be placed, any deviation in excess of 1/4 inch in cross section and in a length of 16-feet measured longitudinally shall be corrected by loosening, adding or removing material, reshaping and recompacting by sprinkling and rolling.

   c) All irregularities, depressions and weak spots which develop in the laid course shall be corrected immediately by scarifying the areas affected, adding suitable material as required, reshaping and recompacting by sprinkling and rolling.

2. When the "Density Control" method of compaction is to be used, the

following provisions shall apply:

a) The course shall be sprinkled as required and compacted to the extent necessary to provide not less than the percent density as hereinafter specified under "Density".

b) In addition to the requirement specified for density, the full depth of the flexible base shown on the plans shall be compacted to the extent necessary to remain firm and stable under construction equipment.

c) After each section of flexible base is completed, tests as necessary will be made by the ENGINEER. If the material fails to meet the density requirements, it shall be reworked as necessary to meet these requirements.

d) Throughout this entire operation, the shape of the course shall be maintained by blading, and the surface upon completion shall be smooth and in conformity with the typical sections shown on the plans and to the established lines and grades.

e) In the areas on which pavement is to be placed, any deviation in excess of 1/4 inch in cross section and 16 feet in length, measured longitudinally, shall be corrected by loosening, adding or removing material, reshaping and recompacting by sprinkling and rolling.

f) All irregularities, depressions, or weak spots which develop shall be corrected immediately by scarifying the areas affected, adding suitable material as required, reshaping and recompacting by sprinkling and rolling.

I. Should the base course, due to any reason or cause, lose the required stability, density or finish before the surfacing is complete, it shall be recompacted and refinished at the sole expense of the CONTRACTOR.

J. Where Type C material is used, the material shall be scarified, thoroughly

wetted, mixed, manipulated, and bladed so as to secure a uniformly wetted material, and pulled in over the subgrade in courses and set under the action of blading and rolling. The work of mixing, blading, rolling, shaping, and subsequent maintenance shall be performed by the continuous use of sufficient number of satisfactory rollers and power maintainers with adequate scarifier attachments.

3.03 PLACEMENT OF FIRST COURSE - TYPE D MATERIAL:

A. Immediately before placing the base material, the subgrade shall be checked as to conformity with grade and section, and corrections made if necessary.

B. All materials shall be delivered in approved vehicles of a uniform capacity.

C. The required amount of shell shall be uniformly spread across the section and allowed to dry sufficiently to insure proper slaking and mixing of the binder material. Immediately upon completion of the drying period, as determined by the ENGINEER, the specified amount of sand admixture, as required to produce a combined material meeting the requirements hereinbefore specified, shall be spread uniformly across the shell.

D. The material shall then be sprinkled as required and thoroughly mixed by blading and harrowing, or other approved methods.

E. Failure to proceed with the placing of sand admixture or mixing and placing operations will be grounds for the suspension of placing of shell.

F. Under no conditions will the CONTRACTOR be allowed to place an excessive amount of shell without proceeding with the mixing and placing operations.

G. The course shall be compacted by the method of compaction hereinafter specified as the "Ordinary Compaction" method or the "Density Control" method of compaction as indicated on the plans, or as directed by the ENGINEER.

1. When the plans indicate that the "Ordinary Compaction" method is to be used, the following provisions shall apply:

a) After mixing, all material shall be windrowed, and then spread over the section in layers.

b) The layer shall not exceed 2 inches in loose depth.

c) If necessary to prevent segregation, the material shall be wetted in the windrow prior to spreading.

d) After each lift is spread, it shall be sprinkled and rolled to secure maximum compaction as directed by the ENGINEER. Succeeding

layers shall then be placed similarly until the course is completed.

e) All areas and "nests" of segregated coarse or fine material shall be removed and replaced with well graded material, as directed by the ENGINEER.

f) The course shall then be sprinkled as required and rolled as directed until a uniform compaction is secured.

g) Throughout this entire operation, the shape of the course shall be maintained by blading; and the surface, upon completion, shall be smooth and in conformity with the typical sections shown on plans, and to the established lines and grades.

h) In the areas on which pavement is to be placed, any deviation in excess of 1/4 inch in cross section and 16-feet in length, measured longitudinally, shall be corrected by loosening, adding or removing material, reshaping and recompacting by sprinkling and rolling.

i) All irregularities, depressions, or weak spots which develop shall be corrected immediately by scarifying the areas affected, adding suitable material as required, reshaping and recompacting by sprinkling and rolling.

2. When the plans indicate that the "Density Control" method of compaction is to be used, the compaction method shall be the same as prescribed for Type A, Type B, Type C, Type F and Type G material.

H. When indicated on the plans or permitted by the ENGINEER, Type D material may be mixed in a central mixing plant and delivered to the road as a combined mixture. When this method is used, the combined mixture shall meet the requirements for type D material as hereinbefore specified and the placing and compaction requirement shall be the same as prescribed for Type A, Type B, Type C, Type F and Type G material.

3.03 PLACEMENT OF FIRST COURSE - TYPE E MATERIAL:

A. The construction methods for placing the first course of Type E material shall be the same as prescribed for Type D material except that after the shell and sand have been placed, the prescribed amount of caliche shall then be spread across the sand and shell.

B. The composite mixture shall then be sprinkled as required and thoroughly mixed by blading and harrowing or other approved methods.

C. Compaction of the first course of Type E material shall be the same as prescribed above for Type D material.

D. Failure to proceed with placing the sand and caliche admixture or mixing and placing operations will be grounds for the suspension of placing of shell.

E. Under no conditions will the CONTRACTOR be allowed to place an excessive amount of shell without proceeding with the mixing and placing operations.

3.05 PLACEMENT OF SUCCEEDING COURSES - ALL MATERIAL TYPES:

A. Construction methods shall be the same as prescribed for the first course.

B. Prior to placing the surfacing on the completed base, the base shall be "dry cured" to the extent directed by the ENGINEER.

3.06 REWORKING AN EXISTING BASE COURSE

A. Existing base courses shall be reworked in accordance with TxDOT Item 251, or as directed by the ENGINEER, and result in a section that conforms the approved lines and grades.

3.07 DENSITY CONTROL:

A. When the "Density Control" method of compaction is indicated on the plans, each course of flexible base shall be compacted to the percent density shown on the plans.

B. The testing will be as outlined in Test Method Tex-114-E.

C. It is the intent of this specification to provide that the part of the base included in the top 8 inches, immediately below the finished surface of the roadway, be not less than 100 percent of the density, as determined by the compaction ratio method.

D. Field density determination shall be made in accordance with Test Method Tex-115-E.

3.08 TOLERANCES:

A. Flexible base will be measured by the square yard of surface area of completed

and accepted work based on the thickness of flexible base as shown on the plans.

1. The ENGINEER may accept the work providing not more than 25 percent of the density tests performed each day are outside the specified density by no more than three pounds per cubic foot and where no two consecutive tests on continuous work are outside the specified limits.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT:

A. Flexible base will be measure by the square yard of surface area of completed and accepted work based on the thickness of flexible base as shown on the plans.

1. The flexible base shall be measured for depth by the units of 2000 square yards, with one measurement taken at a location selected by the ENGINEER.

2. In that unit where flexible base is deficient by more than 1/2 inch in thickness, the deficiency shall be corrected by scarifying, adding material as required, reshaping and recompacting by sprinkling and rolling.

3. No additional payment over the contract unit price will be made for any flexible base of a thickness exceeding that required by plans.

B. The CONTRACTOR shall schedule his operations in such a manner as to facilitate the measurement of the pay item.

C. The ENGINEER may accept the work provided no more than 2 out of 10 depth tests performed are deficient by not more 1/2 inch and where no two consecutive tests on continuous work are outside the specified depth.

4.02 PAYMENT:

A. The accepted quantities of flexible base of the type, grade, and compaction method specified will be paid at the contract unit bid price per square yard, complete and in place.

B. Where "Ordinary Compaction" is used, all sprinkling, rolling, and manipulation required will not be paid for directly, but will be incidental to other bid items.

C. The unit prices bid shall each be full compensation for shaping and fine grading the roadbed; for securing and furnishing all materials, including all royalty and freight involved; for furnishing scales and labor involved in weighing the material when required; for loosening, blasting, excavating, screening, crushing and temporary stockpiling when required; for loading all materials for all hauling and delivering on the road; for spreading, mixing, blading, dragging, shaping and finishing, and for all manipulation, labor, tools and incidentals necessary to complete the work.

*** * * END OF SECTION * * ***

SECTION 02238 - REMOVAL OF CONCRETE

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION OF WORK:

A. This work shall consist of breaking up, removing and satisfactorily disposing of existing concrete, as classified, at locations indicated or as directed by the Engineer.

B. Existing concrete, when under this section, will be classified as follows:

1. Concrete Curb will include curb and curb-and-gutter combinations.

2. Concrete Slabs will include, but not be limited to, patio slabs, porch slabs, foundation slabs, concrete riprap and concrete pavement.

3. Sidewalks and Driveways will include concrete sidewalks and driveways.

4. Concrete Walls will include all walls, regardless of height and wall footings.

5. Concrete Steps will include all steps and combinations of walls and steps.

6. Abandoned Foundations will include abandoned Electric Department foundations.

7. Miscellaneous Concrete shall include, but not be limited to, manholes, inlets, junction boxes and headwalls, as indicated by the plans or the Engineer.

PART 2 PRODUCTS

2.01 MORTAR:

A. Mortar, for repair of existing concrete structures, shall conform to the requirements thereof in Section 03300 - Cast-In-Place Concrete.

PART 3 - EXECUTION

3.01 CONSTRUCTION METHODS:

A. Prior to commencing this work, all erosion control and tree protection measures required shall be in place and all utilities located and protected. The existing concrete shall be broken up, removed and disposed of at a permitted disposal site by the Contractor.

B. Where only a portion of the existing concrete is to be removed and the remaining portion is to continue to serve its purpose, care shall be exercised to avoid damage to the portion that will remain in place.

C. The existing concrete shall be cut along neat lines when indicated, or as established by the Engineer, by sawing with an appropriate type circular concrete saw to a minimum depth of 1/2 inch.

D. Any reinforcing steel encountered shall be cut off 1 inch inside of the concrete sawed line. Any existing concrete which is damaged or destroyed beyond the neat lines so established, shall be replaced at the Contractor's expense.

E. The remaining concrete shall be mortared to protect the reinforcing steel and provide a neat, clean appearance.

F. When applicable, a minimum of 1 foot of steel length shall be cleaned of all old concrete and left in place to tie into the new construction when reinforcement is encountered in the removed portions of structures to be modified.

G. All unsuitable material shall be removed and replaced with approved material.

H. All foundation, walls or other objectionable material shall be removed to a minimum depth of 18 inches below all structures and 12 inches below areas to be vegetated.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT:

A. Concrete curb and concrete wall, when removed as prescribed above, will be measured by the linear foot, in its original position, regardless of the dimensions or size.

B. Concrete slabs and concrete sidewalks and driveways removed as prescribed above will be measured by the square foot in original position, regardless of the thickness and reinforcing.

C. Concrete steps removed will be measured per linear foot of each individual step tread including the bottom step.

D. Concrete foundation removed will be measured per each.

E. Miscellaneous concrete removed will be measured per each.

4.02 PAYMENT:

A. This item will be paid for at the contract unit price bid for "Removed Concrete Curb", "Removed Concrete Slab", "Remove Concrete Sidewalks and Driveways", "Removed Concrete Foundations" and "Remove Miscellaneous Concrete", which price shall be full compensation for all work herein specified, including the disposal of all material not required in the work, the furnishing of all materials, equipment, tools, labor and incidentals necessary to complete the work.

B. When not listed as a separate contract pay item, removal of concrete shall be considered as incidental work, and the cost thereof shall be included in such contract pay item(s) as are provided in the proposal contract.

C. Compensation, whether by contract pay item or incidental work, will be for furnishing all materials, labor, equipment, tools and incidentals required for the work, all in accordance with the plans and these specifications.

*****END OF SECTION*****

SECTION 02241 - PNEUMATIC TIRE ROLLING

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION OF WORK:

A. This work shall consist of the compaction of embankment, flexible base, surface treatments, or pavements by the operation of approved pneumatic tire rollers.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS:

A. When used on seal coats, asphaltic surface treatments, and bituminous mixture pavements, the roller shall be self propelled and equipped with smooth tread tires with a tire pressure of 45 psi.

B. The roller shall be so constructed as to be capable of being operated in both a forward and a reverse direction.

C. When used on bituminous mixture pavements, the roller shall have suitable provision for moistening the surface of the tires while operating.

D. When turning is impractical or detrimental to the work and when specifically directed by the ENGINEER, the roller shall be of the self-propelled type.

E. In lieu of the rolling equipment specified, the CONTRACTOR may operate other compacting equipment that will produce equivalent relative compaction in the same period of time as the specified equipment. If the substituted compaction equipment fails to produce the desired compaction within the same period of time, its use shall be discontinued.

F. Rollers shall be maintained in good repair and operating condition and shall be approved by the ENGINEER.

2.02 LIGHT PNEUMATIC TIRE ROLLER:

A. The light pneumatic tire roller shall consist of not less than 9 pneumatic tire wheels, running on axles in such manner that the rear group of tires will cover the entire gap between adjacent tires

of the forward group, mounted in a rigid frame, and provided with a loading platform or body suitable for ballast loading.

B. The front axle shall be attached to the frame in such manner that the roller may be turned within a minimum circle.

C. Under working conditions the pneumatic tire roller shall have an effective rolling width of approximately 60 inches and shall be so designed that by ballast loading the total load can be varied uniformly from 9,000 pounds or less to 18,000 pounds or more.

D. The roller shall be equipped with tires that will afford ground contact pressures to 45 pounds per square inch or more. The operating load and tire air pressure shall be within the range of the manufacturer's chart. The roller under working conditions shall provide a uniform compression under all wheels.

E. Individuals tire inflation pressures shall be within +5 psi of each other.

F. The pneumatic tire roller shall be drawn by a suitable crawler type tractor, a pneumatic tired tractor, a truck of adequate tractive effort or may be of the self-propelled type and the roller, when drawn or propelled by either type of equipment, shall be considered a light pneumatic tire roller unit.

2.03 MEDIUM PNEUMATIC TIRE ROLLER (TYPE A):

A. The medium pneumatic tire roller (Type A) shall consist of not less than 7 pneumatic tired wheels, running on axles in such manner that the rear group of tires will cover the entire gap between adjacent tires of the forward group and mounted in a rigid frame and provided with a loading platform or body suitable for ballast loading.

B. The front axles shall be attached to the frame in such a manner that the roller may be turned within a minimum circle. The pneumatic tire roller, under working conditions, shall have an effective rolling width of approximately 84 inches and shall be so designed that, by ballast loading, the total load may be varied uniformly from 23,500 pounds or less to 50,000 pounds or more.

C. The roller shall be equipped with tires that will afford ground contact pressures to 80 pounds per square inch or more. Individual tire inflation pressures shall be within +5 psi of each other.

D. The operating load and tire air pressure shall be within the range of the manufacturer's chart.

E. The pneumatic tire roller shall be drawn by a suitable crawler type tractor, a pneumatic tired tractor, a truck of adequate tractive effort or may be of the self-propelled type.

F. The roller, when drawn or propelled by any type of equipment, shall be considered a medium pneumatic tire roller unit.

G. The power unit shall have adequate tractive effort to properly move the operating roller at variable uniform speeds up to approximately 5 miles per hour.

2.04 MEDIUM PNEUMATIC TIRE ROLLER (Type B):

A. The medium pneumatic tire roller (Type B) shall conform to the requirements for Medium Pneumatic Tire Roller (Type A) as specified above, except that the roller shall be equipped with tires that will afford ground contact pressures to 90 psi or more.

PART 3 -EXECUTION

3.01 CONSTRUCTION METHODS:

A. The embankment layer or the base course be sprinkled if directed and rolling with a pneumatic tire roller shall start longitudinally at the sides and proceed towards the center, overlapping on successive trips by at least 1/2 of width of the pneumatic tire roller.

B. On super-elevated curves, rolling shall begin at the low sides and progress towards the high sides.

C. Alternative trips of the roller shall be slightly different in length.

D. The light pneumatic tire roller shall be operated at speeds between 2 and 6 miles per hour for asphalt surfacing work and all other work.

E. The medium pneumatic tire roller shall be operated at speeds which produce a satisfactory product.

F. Sufficient rollers shall be provided to compact the material in a satisfactory manner. When operations are so isolated from one another that 1 roller unit cannot perform the required compaction satisfactorily, additional roller units shall be provided.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT:

A. No additional compensation will be made for materials, equipment or labor required by this item, but shall be considered subsidiary to the various items of the contract.

*** * * END OF SECTION * * ***

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02242 - PROOF ROLLING

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION WORK:

A. This work shall consist of furnishing and operating heavy, pneumatic-tired, compaction equipment for testing the compaction of embankment, subgrade or flexible base.

B. Proof roll is to be used to locate unstable areas.

PART 2 - PRODUCTS

2.01 EQUIPMENT:

A. The proof rolling equipment shall consist of not less than 4 pneumatic tired wheels, running on axles carrying not more than 2 wheels, mounted in a rigid frame, and provided with a loading platform or a body suitable for ballast loading.

B. All wheels shall be arranged so that they will carry approximately equal loads when operating on uneven surfaces.

C. Under working conditions the proof roller shall have a rolling width of 8 feet to 10 feet and shall be so designed that by ballast loading the gross load may be varied uniformly from 25 tons to 50 tons.

D. The tires shall be capable of operating under the various loads with variable air pressure up to 150 pounds per square inch. The operating load and tire pressure shall be within the range of the manufacturer's chart and as directed by the ENGINEER.

E. The proof roller may be of the self-propelled type or shall be drawn by a suitable crawler-type tractor or a rubber tired tractor of adequate tractive effort. There shall be a sufficient quantity of ballast available to load the equipment to a maximum gross weight of 50 tons.

F. Rubber tired tractive equipment shall be used on base courses.

G. Other type tractive equipment may be used on embankment subgrade.

H. The heavy pneumatic tired roller unit shall be capable of turning 180 degrees in the crown width.

I. In lieu of the rolling equipment specified, the CONTRACTOR may, upon written permission from the ENGINEER, operate other equipment that will produce equivalent results as the specified equipment. If the substituted equipment fails to produces the desired results as would be expected of the specified equipment as determined by the ENGINEER, its use shall be discontinued.

PART 3 - EXECUTION

3.01 CONSTRUCTION METHODS:

A. This work shall be done to proof all prepared subgrade and flexible base courses or as directed by the ENGINEER.

B. On embankment compaction, each layer will be placed to specified thickness at optimum moisture and compacted with conventional equipment to comply with the requirements of the governing embankment item.

C. Prior to placing the overlaying course, the layer shall be proof rolled as directed by the ENGINEER.

D. When the operation of the proof rolling unit shows an area to be unstable or nonuniform, such area shall be brought to satisfactory stability and uniformity by additional compaction or by removal of unsuitable materials and replacement with suitable materials and recompacted.

E. The surface tested shall then be checked for conformity with line and grade and any irregularities corrected.

F. Roller shall be operated at speeds between 2 and 6 miles per hour or as directed by the ENGINEER.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT:

A. No additional payment will be made for the materials, equipment or labor required by this item and shall be considered subsidiary to the various items included in the contract.

*** * * END OF SECTION * * ***

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02250 - PRIME COAT

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION:

A. Prime coat shall consist of the application of asphaltic materials on a completed base course and/or other approved area, which shall be applied in accordance with these specifications, as shown on the plans, and as directed by the ENGINEER.

1.02 QUALITY ASSURANCE:

A. Test and Certification of Bituminous Materials.

1. Bituminous materials to be tested in accordance with the requirements of AASHTO M-82 and sampled in conformance with AASHTO T-40.

2. Supply, at the time of delivery of each shipment of asphalt, two certified copies of test reports from the supplying vendor to the ENGINEER.

3. Test reports shall indicate name of vendor, type and grade of asphalt delivered, date and point of delivery, quantity delivered, delivery ticket number, purchase order number, and result of specified tests.

   The test report shall be signed by an authorized representative of the vendor and certify that the product delivered conforms to the specifications for type and grade indicated.

   Certified test reports and the testing required in the preparation of such report shall be at no cost to the Owner.

4. Final acceptance of bituminous materials shall be dependent on the determination by the ENGINEER that the material meets prescribed standards.

PART 2- PRODUCTS

2.01 MEDIUM CURING CUTBACK ASPHALT:

A. Medium-curing liquid asphalt, designated by the letters MC, shall consist of an uncracked petroleum base stock, produced by the processing of asphaltic or semi-asphaltic base crude petroleum, blended with a kerosene-type solvent. The base stock for

all MC materials shall be straight run asphalt produced within the penetration range of 100 to 300, and the end point of the kerosene type solvent shall not exceed 525° F. Medium curing liquid cutback asphalt shall be free from water and show no separation.

B. Medium curing cutback asphalt shall consist of materials specified above and conforming to the requirements set forth in Table 2250-1.

TABLE 2250-1

Specification Designation	AASHTO Test Method	ASTM Test Method	MC 30	MC 70	MC 250	MC 800	MC 3000
Flash Point (Open Cleave) °F, Min.	T 48	D 92	100	100	150	150	150
Viscosity, 140°F, Kinematic, CS	T 201	D 2170	30 - 60	70 - 140	250 - 500	800 - 1600	3000 – 6000
Furol Visocity at:	T 72	D 88					
77° F (Sec.)			75-150				
122° F (Sec.)				60-120			
140° F (Sec.)					125-250		
180° F (Sec.)						100-200	300-600
Distillation Distillate (% of Total Distillate to 680° F)	T 78	D 402					
437° F			0-25	0-20	0-10	0	0
500° F			40-70	25-60	20-55	10-35	0-15
600° F			75-93	75-90	70-85	65-80	50-75
Reside from Distillation to 680° F Volume % by Difference Min.			50	55	67	75	80
Tests on Residue from Distillation Penetration at 77° F	T 49	D 5	120 - 250	120 - 250	120 - 250	120 - 250	120 – 250
* Ductility 77° F, cm, Min.	T 51	D 113	100	100	100	100	100
Solubility in CCl_4, % Min.	T 44		99.5	99.5	99.5	99.5	99.5
Water, % Max.	T 55	D 95	0.2	0.2	0.2	0.2	0.2
Reaction to Spot Test	T 102**		0	0	0	0	0

* If penetration of residue is more than 200 and its ductility at 77° F is less than 100, the material will be acceptable if the ductility at 60° F is greater than 100.

** Using 85% Standard Naptha and 15% Xylene.

NOTE: Viscosity tests may be made by either Kinematic or Furol test methods.

C. Unless otherwise noted on the plans or directed by the ENGINEER, cutback asphalt Grade MC-30 shall be used.

2.02 BLOTTER MATERIAL:

A. Supply blotter material consisting of native sand and/or sweepings from base course.

B. Native sand shall be local material obtained from approved sources as approved by the ENGINEER.

PART 3 - EXECUTION

3.01 CONSTRUCTION METHODS:

A. Unless otherwise specified on the plans or required by the ENGINEER, only asphaltic material shall be used. Where required, a combination of asphaltic and blotter material shall be used.

B. Application of Asphaltic Materials Only.

1. Apply prime coat to prepared surface when ambient air temperature is above 40° F and rising and shall not be applied when the ambient air temperature is below 50° F and falling.

2. Apply prime coat to surfaces that have been cleaned by sweeping or other approved methods and where base is thoroughly dry and satisfactory for receiving prime coat.

3. Apply prime coat to cleaned base, at a rate of 0.2 to 0.5 gallons per square yard of surface area, using an approved type of self-propelled pressure distributor so constructed and operated to distribute the material evenly and smoothly.

4. Provide necessary facilities for the determination of temperature of asphaltic material in all heating equipment and distributors; and for determination of rate at which it is applied; and for securing uniformity at the junction of two distributor loads.

5. Keep in clean and good working condition all storage tanks, piping, reports, booster tanks and distributors used in the storage and handling of asphaltic materials.

6. Operate all associated equipment in a manner such that there is no contamination of asphaltic material with foreign material.

7. Calibrate distributor and furnish ENGINEER with an accurate and satisfactory record of such calibrations.

8. Recalibrate distributor, in a manner satisfactory to the ENGINEER, after the beginning of work, should the yield on the asphaltic material applied appear to be in error.

9. No traffic, hauling or placing of subsequent courses shall be permitted over freshly applied prime coat until authorized by the ENGINEER.

10. Apply asphaltic material at a temperature within 15° F of temperature of application selected by the ENGINEER based on temperature viscosity relationship noted in Table 2250-1.

11. Maintain surface until work is Blotter Material.

C. Application of Asphaltic and Blotter Material

1. Haul blotter material in vehicles of uniform capacity and placed on shoulders at spacings designated by the ENGINEER.

2. After application of asphaltic material as specified above, cover surface with blotter material as directed by the ENGINEER.

3. After application of blotter material, drag surface with approved drag broom, evenly and smoothly distributing the blotter material. Brooming or dragging operation shall continue, as directed by the ENGINEER, until the course has properly cured under traffic.

PART 4 - MEASUREMENT AND PAYMENT

4.01 PRIME COAT:

A. Asphaltic material for prime coat will be measured for payment at point of

delivery on the project in gallons at applied temperature. Payment will be paid at the unit bid price for "Prime Coat".

B. When not listed as a separate contract pay item, prime coat shall be considered as incidental work, and the cost thereof shall be included in such contract pay item(s) as are provided in the proposal contract.

C. Compensation, whether by contract pay item or incidental work will be for furnishing all material, labor, equipment, tools and incidentals required for the work, all in accordance with the plans and these specifications.

4.02 BLOTTER MATERIALS:

A. Blotter material will be considered incidental to asphaltic material for prime coat with no direct payment.

*** * * END OF SECTION * * ***

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02510 - CONCRETE CURB AND GUTTER AND VALLEY GUTTER

PART 1 - GENERAL

1.01 GENERAL DESCRIPTION OF WORK:

A. This work shall consist of the construction of concrete curb, concrete curb and gutter, concrete gutter or valley gutter, or combination thereof in compliance with the specifications, lines, grades, and details shown on the plans, or as directed by the ENGINEER.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. Concrete and manufactured curb and gutter materials shall be subject to inspection and tests at plants and construction sites for compliance with quality requirements.

B. Concrete curb and gutter or concrete valley gutter shall be constructed with concrete conforming to the provisions of Section 02614 - Portland Cement Concrete Paving, or Class "B" concrete conforming to the requirements of Section 03300 - Cast-In-Place Concrete.

C. Preformed expansion Joint Filler shall conform to the requirements of AASHTO M-33 or M-153.

D. Linseed Oil shall conform to the requirements of AASHTO D-260.

E. Mineral Spirits shall conform to the requirements of AASHTO D-235.

2.02 FOUNDATION:

A. Concrete curb and gutter or concrete valley gutter shall be placed on an approved foundation conforming to the requirements of the following Specifications:

1. Section 02210 - Subgrade Preparation,

2. Section 02223 - Flexible Base,

3. Section 0223 - Roadway Excavation, Borrow, and Embankment.

PART 3 - EXECUTION

3.01 EXCAVATION:

A. When required, excavation shall be made to the specified depth, and the base upon which the curb and gutter or valley gutter is to be placed shall be compacted to a firm, even surface conforming to the requirements of Subsection 2.02 above.

B. All soft and unacceptable material shall be removed and replaced with material approved by the ENGINEER in conformance with the requirements of Subsection 2.02 above.

3.02 FORMS:

A. Forms shall be of wood or metal, straight, free from warp, and of such construction that facilitates the inspection of the grade and alignment for compliance with the approved plans and specifications.

B. All forms shall extend for the entire depth of the curb and gutter and shall be braced and secured sufficiently so that no deflection from alignment or grade will occur during the placement of the concrete. Flexible forms shall be used in curved sections so that the top surface of the forms will form a smooth, continuous arc.

3.03 MIXING AND PLACING:

A. Concrete shall be proportioned, mixed, and placed in accordance with the requirements of Section 02614 and Section 03300.

B. Compaction of the concrete placed in forms shall be by vibration or other acceptable methods.

C. Unless otherwise provided, the exposed surfaces of curbs and gutters shall be finished by belting or with wooden floats. Forms shall be left in place until the concrete has set sufficiently so that they can be removed without injury to the curb and gutter.

3.04 SECTIONS:

A. Curb and gutter shall be constructed in sections having a uniform length of 20 feet, unless otherwise directed by the ENGINEER. Except at expansion joints, sections shall be separated by open joints 1/8 inch wide.

3.05 EXPANSION JOINTS:

A. Expansion joints shall be formed at the intervals shown on the plans using a preformed expansion joints filler having a thickness of 3/4 inch.
B. When the curb and gutter or concrete valley gutter is constructed adjacent to an existing concrete pavement, an expansion joint shall be located between the curb and gutter section and the existing concrete pavement.

3.06 CURING

A. Immediately upon completion of the finishing, the curb and gutter shall be moistened and kept moist for 3 days, or the curb and gutter shall be cured by the use of a membrane-forming material. The method and details of curing shall be subject to the approval of the ENGINEER.

3.07 SURFACE TREATMENT:

A. The surface of concrete curb and gutter or concrete valley gutter shall be treated with a solution of Linseed Oil and Mineral Spirits in accordance with the applicable requirements of Section 03300 - Cast-In-Place Concrete.

3.08 BACKFILLING:

A. After the concrete has set sufficiently, the spaces in front and behind the curb and gutter section shall be refilled to the required elevation with material approved by the ENGINEER, and shall be thoroughly tamped in layers of not more than 6 inches.

3.09 SLIP-FORM CONCRETE CURB, CONCRETE CURB AND GUTTER OR CONCRETE VALLEY GUTTER:

A. Any concrete curb or concrete curb and gutter, except on structures, may be placed using a slip form machine provided that the finished concrete curb or concrete curb and gutter is true to line and grade, the concrete is dense, and of the required surface texture.

B. The concrete shall be of a consistency that it will maintain the shape of the concrete curb or concrete curb and gutter section without support after slip forming.

C. The top and face of the finished concrete curb or concrete curb and gutter shall be true a straight and the top surface of the concrete curb or concrete curb and gutter shall be of uniform width and free from humps, sags, or other irregularities.

D. The forming portion of the slip form machine shall be readily adjustable vertically during the forward motion of the slip form machine to provide a variable height of concrete curb or concrete curb and gutter grade when necessary. A grade line gauge or pointer shall be attached to the slip form machine in such a manner that a continual comparison can be made between the concrete curb or concrete curb and gutter grade as indicated by the offset guidelines.

E. Concrete shall be fed to the slip form machine at a uniform rate. The slip form machine shall be operated under sufficient uniform restraint to forward motion to produce a well compacted mass of concrete free from surface pits larger than 3/16 inch in diameter and requiring no further finishing, other than light brushing with a wet brush. Finishing with a brush application of grout will not be permitted.

F. Transverse weakened planes and expansion joints shall be constructed at right angles to the line of the concrete curb, concrete curb and gutter, or concrete valley gutter.

G. Expansion joints may be constructed by sawing through the concrete curb or concrete curb and gutter section to its full depth. The width of the cut shall be such as to admit the joint filler with a snug fit.

H. The operations of sawing and inserting the joint filler shall be completed before curing the concrete. At the conclusion of the curing period the filler in each joint shall be checked for tightness of fit. Loose filler in any joint shall be mortared in place and cured.

I. Excavation shall be as per Subsection 3.02 above.

J. All remaining provisions of Subsection 2.02 above also apply, unless otherwise specified.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT:

A. Curb and gutter, curb, and valley gutter shall be measured by the linear foot.

1. Curb shall be measured along the front face of the section at the finished grade elevation.

2. Combination curb and gutter will be measured along the face of the curb at the flowline of the gutter.

3. Valley gutter will be measured along the flowline of the gutter.

B. A deduction in length shall be made for drainage structures, such as catch basins or inlets, in the curb, gutter, or combination thereof.

C. There will be no direct measurement or payment of materials used to construct curb and gutter, curb, or valley gutter.

D. Excavation or construction of embankment for foundation of curb, valley gutter, or combination curb and gutter will not be measured for payment.

4.02 PAYMENT:

A. The accepted quantities of curb, valley gutter, and curb and gutter will be paid for at the contract unit bid price per linear foot for each kind and type specified, complete and in place.

B. Foundation preparation by excavating or constructing embankment to the required subgrade elevation is considered incidental to the completion of the work and no direct payment will be made thereof.

C. Compensation will be for furnishing all materials, labor, equipment, tools and incidentals required for the work, all in accordance with the plans and these specifications.

*** * * END OF SECTION * * ***

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02514 – CONCRETE FLATWORK, CURBS, & APPROACHES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 specification sections apply to work of this section.

1.02 DESCRIPTION OF WORK

A. Extent of portland cement concrete paving is shown on drawings including walks, curbs, and approaches.

1.03 QUALITY ASSURANCE

A. Codes and Standards: Comply with local governing regulations.

1.04 JOB CONDITIONS

A. Traffic Control:

1. Maintain access for vehicular and pedestrian traffic as required for other construction activities.

2. Utilize barricades and warning signs as required.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Forms: Steel, wood, or other suitable material of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removal. Use straight forms, free of distortion and defects.

1. Use flexible spring steel forms or laminated boards to form radius bends as required.

2. Coat forms with a nonstaining form release agent that will not discolor or deface surface of concrete.

B. Welded Wire Mesh: Welded plain cold-drawn steel wire fabric, ASTM A185. Furnish in flat sheets, not rolls, unless otherwise acceptable to Architect.

C. Reinforcing Bars: Deformed steel bars ASTM A615, Grade 40.

D. Fabricated Bar Mats: Welded or clip assembled steel bar or rod mats, ASTM A184. Use ASTM A615, Grade 40 steel bars, unless otherwise indicated.

E. Joint Dowel Bars: Plain steel bars, ASTM A615, Grade 40. Cut bars true to length with ends square and free of burrs.

F. Concrete Materials:

1. Portland Cement: ASTM C 150, Type I

a. Use one brand cement throughout project, unless otherwise acceptable to Architect.

2. Normal Weight Aggregates: ASTM C33, and as herein specified. Provide aggregates from a single source for exposed concrete.

a. For exterior exposed surfaces, do not use fine or coarse aggregates containing spalling causing deleterious substances.

b. Local aggregates not complying with ASTM C33 but which have shown by special test or actual service to produce concrete of adequate strength and durability may be used when acceptable to Architect.

G. Expansion Joint Materials: Contractor shall use pre-formed expansion joint fillers and sealers.

H. Liquid Membrane Forming Curing Compound: Complying with ASTM C309, Type I, Class A unless other type acceptable to Architect. Moisture loss not more than 0.055 gr./sq. cm. when applied at 200 sq. ft./gal.

1. Available Products: Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following:

2. Products: Subject to compliance with requirements, provide one of the following:

a. "Masterseal", Master Builders
b. "Clear Seal", A.C. Horn
c. "Sure Cure", Kaufman Products, Inc.
d. "Sealkure", Toch Div. - Carboline
e. "Kure-N-Seal", Sonneborn-Contech
f. "Sonocrete", Sonneborn-Contech
h. "L&M Cure", L&M Construction Chemicals

I. Bonding Compound: Polyvinyl acetate or acrylic base, rewettable type.

1. Available Products: Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following:

2. Products: Subject to compliance with requirements, provide one of the following:
   a. "Weldcrete", Larsen Products
   b. "Everbond", L&M Construction Chemicals
   c. "Hornweld", A.C. Horn
   d. "Sonocrete", Sonneborn-Contech
   e. "Acrylic Bondcrete", The Burke Co.

2.02 CONCRETE MIX, DESIGN, AND TESTING

A. Design mix to product normal weight concrete consisting of portland cement, aggregate, and water to produce the following properties.

1. Compressive Strength: 3000 psi, minimum at 28 days, unless otherwise indicated.

2. Slump Range: 5" for concrete containing HRWR admixture (super-plasticizer); 3" for other concrete.

3. Air Content: 5% to 8%.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION

A. Remove loose material from compacted subbase surface immediately before placing concrete.

B. Proof roll prepared subbase surface to check for unstable areas and need for additional compaction. Do not begin paving work until such conditions have been corrected and are ready to receive paving.

3.02 FORM CONSTRUCTION

A. Set forms to required grades and lines rigidly braced and secured. Install sufficient quantity of forms to allow continuous progress of work and so that forms can remain in place at least twenty four (24) hours after concrete placement.

B. Check completed formwork for grade and alignment to following tolerances:

1. Top of forms not more than 1/8" in 10'.

2. Vertical face on longitudinal axis, not more than 1/4" in 10'.

C. Clean forms after each use and coat with form release agent as often as required to ensure separation from concrete without damage.

3.03 REINFORCEMENT

A. Locate, place, and support reinforcement as specified in this section unless otherwise indicated on plans.

B. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports and as herein specified.

C. Avoiding cutting or puncturing vapor retarder during reinforcement placement and concreting operations.

D. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.

E. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as approved by Engineer.

F. Place reinforcement to obtain at least minimum coverage's for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

G. Install welded wire fabric in as long lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

3.04 CONCRETE PLACEMENT

A. General: Comply with requirements of Division 3 sections for mixing and placing concrete and as herein specified.

1. Do not place concrete until subbase and forms have been checked for line and grade. Moisten subbase if required to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.

2. Place concrete using methods which prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocation of reinforcing, dowels, and joint devices.

3. Use bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

4. Deposit and spread concrete in a continuous operation between transverse joints, as far as possible. If interrupted for more than 1/2 hour, place a construction joint.

B. Fabricated Bar Mats:

1. Keep mats clean and free from excessive rust and handle units to keep them flat and free of distortions. Straighten bends, kinks, or other irregularities or replace units as required before placement. Set mats for a minimum 2" overlap to adjacent mats.

2. Place concrete in 2 operations; strike-off initial pour for entire width of placement and to the required depth below finish surface. Lay fabricated bar mats immediately in final position. Place top layer of concrete, strike-off and screed.

a. Remove and replace portions of bottom layer of concrete which has been placed more than 15 minutes without being covered by top layer or use bonding agent if acceptable to Architect.

C. Curbs and Gutters: Automatic machine may be used for curb and gutter placement at Contractor's option. If machine placement is to be used, submit revised mix design and laboratory test results which meet or exceed minimums specified. Machine placement must produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete as specified.

3.05 JOINTS

A. General: Construct expansion, weakened-plane (contraction), and construction joints true-to-line with face perpendicular to surface of concrete. Construct transverse joints at right angles to the center line unless otherwise indicated.

1. When joining existing structures, place transverse joints to align with previously placed joints unless otherwise indicated.

B. Weakened-Plane (Contraction) Joints: Provide weakened-plane (contraction) joints sectioning concrete into areas as shown on drawings. Construct weakened-plane joints for a depth equal to at least 1/4 concrete thickness as follows:

1. Tooled Joints: Form weakened-plane joints in fresh concrete by grooving top portion with a recommended cutting tool and finishing edges with a jointer.

2. Sawed Joints: (Contractor's Option) Form weakened-plane joints using powered saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut joints into hardened concrete as soon as surface will not be torn, abraded, or otherwise damaged by cutting action.

C. Construction Joints: Place construction joints at end of placements and at locations where placement operations are stopped for a period of more than 1/2 hour, except where such placements terminate at expansion joints.

1. Construct joints as shown or, if not shown, use standard metal keyway-section forms.

2. Where load transfer slip dowel devices are used, install so that one end of each dowel bar is free to move.

D. Expansion Joints: Provide premolded joint filler for expansion joints abutting concrete curbs, catch basins, manholes, inlets, structures, walks, and other fixed objects, unless otherwise indicated.

1. Locate expansion joints at 50' o.c. for each pavement lane, unless otherwise indicated.

2. Extend joint fillers full width and depth of joint and not less than 1/2" or more than 1" below finished surface where joint sealer is indicated. If no joint sealer, place top of joint filler flush with finished concrete surface.

3. Furnish joint fillers in one piece lengths for full width being placed wherever possible where more than one length is required, lace or clip joint filler sections together.

4. Protect top edge of joint filler during concrete placement with a metal cap or other temporary material. Remove protection after concrete has been placed on both sides of joint.

E. Fillers and Sealants: Comply with requirements of applicable Division 7 sections for preparation of joints, materials, installation, and performance.

3.06 CONCRETE FINISHING

A. After striking-off and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.

B. After floating, test surface for trueness with a 10' straightedge. Distribute concrete as required to remove surface irregularities and refloat repaired areas to provide a continuous smooth finish.

C. Work edges of slabs, gutters, back top edge of curb, and formed joints with an edging tool and round to 1/2" radius unless otherwise indicated. Eliminate tool marks on concrete surface.

D. After completion of floating and troweling when excess moisture or surface sheen has disappeared, complete surface finishing as follows:

1. Broom finish by drawing a fine hair broom across concrete surface perpendicular to the line of traffic. Repeat operation, if required, to provide a fine line texture acceptable to Architect.

2. On inclined slab surfaces, provide a coarse, non-slip finish by scoring surface with a stiff bristled broom perpendicular to the line of traffic.

E. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point up any minor honeycombed areas. Remove and replace areas or sections with major defects as directed by Architect.

3.07 CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. In hot, dry, and windy weather, protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply in accordance with manufacturer's instructions after screeding and bull floating, but before power floating and troweling. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days.

B. Curing Methods: Perform curing of concrete by curing and sealing compound, by moist curing, by moisture-retaining cover curing, and by combinations thereof, as herein specified.

1. Provide moisture curing by one of the following methods.

2. Keep concrete surface continuously wet by covering with water.

3. Use continuous water-fog spray.

4. Cover concrete surface with specified absorptive cover, thoroughly saturate cover with water, and keep continuously wet.

5. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4-inch lap over adjacent absorptive covers.

6. Provide moisture-cover curing as follows:

a. Cover concrete surfaces with moisture-retarding cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3 inches and sealed by water proof tape or adhesive.

b. Immediately repair any holes or tears during curing period using cover material and water proof tape.

c. Provide curing and sealing compound to exposed interior slabs and to exterior slabs, walks, and curbs as follows:

i. Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen as disappeared).

ii. Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's directions.

iii. Recoat areas subjected to heavy rainfall within 3 hours after initial application.

iv. Maintain continuity of coating and repair damage during curing period.

v. Use membrane curing compounds that will not affect surfaces to be covered with finish materials applied to concrete.

3.08 REPAIRS AND PROTECTIONS

A. Repair or replace broken or defective concrete as directed by Architect.

B. Protect concrete from damage until acceptance of work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.

C. Sweep concrete pavement and wash free of stains, discolorations, dirt, and other foreign material just prior to final inspection.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02570 - SANITARY SEWERS

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

A. Trenching, Backfilling and Compacting: Section 02221.

1.02 SUBMITTAL

A. Submit manufacturer's certification that products meet specification requirements.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver materials on manufacturer's original skids or in original unopened protective packaging. Owner reserves the right to reject material left from another job.

B. Store materials to prevent physical damage.

C. Protect materials during transportation and installation to avoid physical damage.

1.04 GENERAL DESCRIPTION OF WORK COVERED

A. Furnish and install all sewer pipe, fittings and structures, and accessories required for sanitary sewer construction as indicated.

1.05 QUALITY ASSURANCE

A. Comply with latest published editions of American Society of Testing and Materials (ASTM) Standards:

1. ASTM D2321 - Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.

2. ASTM D3212 - Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.

3. ASTM F477 - Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

4. ASTM D3034 - Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC)

Sewer Pipe and Fittings.

5. ASTM F794 - Poly (Vinyl Chloride) (PVC) Ribbed Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter.

6. ASTM F679 - Standard Specification for Poly (Vinyl Chloride) (PVC) Large Diameter Plastic Gravity Sewer Pipe and Fittings (SDR35).

7. ASTM F949 - Standard Specification for Poly (Vinyl Chloride) (PVC) Ribbed Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter.

8. ANSI A21.11 - Rubber Gasket Joints for Cast Iron and Ductile- Iron Pressure Pipe and Fittings.

9. ASTM D3753 - Standard Specification for Glass Fiber Reinforced Polyester Manholes.

10. ASTM C-923 - Standard Specification for Resilient Manhole Connectors.

11. ASTM C-478 - Specification for Pre-cast Reinforced Concrete Manhole Sections.

12. ASTM C-443 - Specification for Joints for Circular Concrete Sewer and Culvert pipe using Rubber Gaskets.

13. ASTM C-1244 - Specification for Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.

14. AWWA C-151 - Specification for Ductile Iron Pipe and Fittings.

15. ASTM D-1248 - Standard specification for Polyethylene Plastics Molding and Extrusion Materials.

16. AWWA C-105 - Polyethylene Encasement for Gray and Ductile Cast -Iron Piping for Water and Other Liquids.

17. AWWA C-110 - Gray Iron And Ductile Iron Fittings 3-inch through 48-inch, for Water and Other Liquids.

18. ASTM D-3350 - Specification for Polyethylene Plastic Pipe and Fittings Materials.

19. ASTM F-714 - Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter (3-inch IPS and larger).

20. ASTM D-3261 - Specification for Butt Heat Fusion Polyethyle (PE) Plastic Fittings for Polyethylene (PE) Pipe and Tubing.

21. ASTM D-1784 - Rigid Poly (Vinyl Chloride) (PVC) Compounds, and Chlorinated Poly (Vinyl Chloride) (CPVC) Compound.

22. AWWA C900 - Polyvinyl Chloride (PVC) Pressure Pipe 4-inch through 12-inch for water distribution.

23. AWWA C905 - Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameter 14-inch through 36-inch.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Pipe furnished may be any one of materials specified herein for sanitary sewer construction unless shown otherwise on plans or bid forms.

B. All pipe shall be marked in accordance with applicable standard specification under which pipe is manufactured unless otherwise specified.

2.02 POLYETHYLENE PIPE AND FITTINGS (PE)

A. Comply with ASTM D3350 and ASTM F-714 for polyethylene (PE) solid wall pipe and fittings for use in pressure sanitary sewers. Wall thickness shall be as shown on the plans.

B. Fittings shall comply with the performance requirements of ASTM D2683 or ASTM D3261 for molded or fabricated fittings of the size and pressure class as required.

C. Provide pipe and fittings with minimum performance requirements of ASTM D 1248, Type III Class C, Category 5, Grade P34 and ASTM D3350 as indicated in this specification and as shown in the plans and details.

2.03 POLYVINYL CHLORIDE PLASTIC PIPE (PVC)

A. Comply with ASTM D3033, D3034, ASTM F679, CT-1 walls, or ASTM F-794 for pipe using material conforming to ASTM D1784 for pipe and fittings.

1. Sewers 6-inches to 10-inches shall conform to ASTM D3034.

2. Sewers 12-inches to 30-inches shall conform to ASTM D3034, ASTM F-679 (T-1 wall), or ASTM F-794 for pipe using material conforming to ASTM D1784 for pipe and fitting.

3. Sewers 36-inches and larger shall conform to ASTM F-949, ASTM D3034, ASTM F-679 or ASTM F-794 for pipe using material conforming to ASTM D1784 for pipe and fitting.

B. Use single elastomeric gasket push-on joints complying with ASTM D3212.

C. Provide pipe and fittings with minimum performance capabilities of SDR-35 dimension ratio for gravity sewers of less than 10-feet in depth or cover. Where directed by the Engineer and as indicated on the plans, sewers greater than 10-feet in depth shall meet SDR26 or AWWA C900 or C905 requirements.

D. Lubricant to be in accordance with the requirements of ASTM D3212. Lubricant to be suitable for lubricating the parts of the joints in the assembly. The lubricant to not have any deteriorating effects on the gasket and pipe materials.

E. Schedule 40 shall be used for service laterals.

F. Mark all pipe and fittings.

2.04 DUCTILE IRON PIPE AND FITTINGS

A. Comply with the latest published edition of American Water Works Association (AWWA) Standards:

1. AWWA C110 & C110a - Gray Iron and Ductile-Iron Fittings, 2-inch through 48-inch for water and other liquids.

2. AWWA C111 - Rubber Gasket Joints for Cast Iron Pressure Pipe and Fittings.

3. AWWA C150 - Thickness Design of Ductile-Iron Pipe.

4. AWWA C151 - Ductile-Iron Pipe, centrifugally cast in metal mold or sand lined molds, for water or other liquids.

5. AWWA C153 - Ductile-Iron Compact fittings, 3-inch through 12-inch for water and other liquids.

6. ASSA C900 - Polyvinyl Chloride (PVC) Pressure Pipe 4-inches through 12-inches for water.

7. Polyethylene encasement for the protection of ductile and cast iron pipes, fittings valves, and appurtenances shall be furnished and installed in accordance with the requirements of AWWA C-105.

8. Lining and Coating- Ductile and cast iron pipes, fittings valves, and appurtenances for sanitary sewer service shall be furnished with corrosion resistant interior lining furnished by the manufacturer:

    1. Polyethylene "polybond"

    2. Polyurethane "Corropipe II TX 5"

    3. Ceramic-Epoxy "Protecto 401"

    4. Engineer Approved Equal

9. Exterior Coating - Ductile and cast iron pipes, fittings valves, and appurtenances for sanitary sewer service shall be furnished with outside surfaces coated with a bituminous coating 1 mil thick in accordance with ANSI A21.6 or ANSI A21.51.

2.05 MANHOLES, STRUCTURES AND PIPE ACCESSORIES

A. Fittings

1. Fittings allowed only on service laterals.

2. Fittings shall equal or exceed quality of pipe. Fittings shall be full-bodied gasket fittings or inserted gasketed compression fittings on line size greater than 15-inches as shown in the plans and details.

B. Pre-cast Reinforced Concrete Manholes & Sections

1. Pre-cast reinforced concrete manhole base sections, riser sections, tops, cones and special sections shall conform to the requirements of ASTM C 478-93. The pre-cast sections shall have rubber gasket compression joints conforming to the material and performance requirements of ASTM C 443.

2. Pre-cast Concrete Manhole Base: A steel reinforced concrete base shall be used with pre-cast concrete manhole sections. This base shall be furnished with confined O-ring joints in conformance with ASTM C 443. The reinforced concrete pre-cast manhole base as shown on the plans shall be manufactured in accordance with ASTM C 478.

3. Watertight, size-on-size resilient connectors allowing for differential settlement shall be used to connect pipe to manholes. Pipe to manhole connectors shall conform to ASTM C-923.

4. Minimum wall thickness will be 5-inches.

5. Concrete and reinforcing steel in foundation shall comply with Section 03300.

C. Cast-in-Place Manholes

1. Concrete and reinforcing steel shall comply with Section 03300.

2. Minimum wall thickness will be 5-inches.

3. Provide cast-in-place rubber gasket for connection of required sewer line or watertight, size-on-size resilient connectors allowing for differential settlement shall be used to connect pipe to manholes. Pipe to manhole connectors shall conform to ASTM C-923.

D. Fiberglass Manholes

1. Fiberglass manholes shall be in accordance with ASTM D3753 "Glass Fiber Reinforced Polyester Manholes, latest revision. The minimum wall thickness for all manholes at all depths shall be .40-inches. The inside diameter of the manhole barrel shall be either 48-inches or 1.5 times the nominal pipe diameter of the largest pipe, which ever is larger, or as indicated on the plan sheets. A concentric reducer over the barrel of the have an inside diameter of 23-inches.

2. Pipe Connectors - Watertight, size-on-size resilient connectors allowing for differential settlement shall be used to connect pipe to manholes. Pipe to manhole connectors shall conform to ASTM C-923 or shall be InsertaTee as shown in the plans and specification details. Joints for sewer pipe for line and drop connections in sizes 4-inches - 15-inches shall be made by means of gasketed inserted watertight compression connection or approved equal as shown in the plans and details. Install in accordance with the manufacturer's written instructions. Connections for pipe larger than 15-inches shall be made using a pre-approved connection. Install in accordance with the manufacturer's written instructions.

E. Manhole Accessories

1. Manhole lid and cover:

   a. Gray cast iron, with minimum clear opening 24- inches.

   b. Use Western Iron Works A770R or approved equal with vent holes.

   c. Provide anchor bolt holes for exposed manhole tops.

2. Manhole Rings:

   a. Provide minimum of three throat rings between cone and manhole

   b. lid and cover.

3. Coating - Coating and lining of the interior vertical surfaces, if required, shall be as noted in the plans and details. Materials shall be installed and applied in accordance with the written instructions and specifications of the manufacturer at the thickness and quality as noted in the plans and details as approved by Engineer.

4. Manhole Inserts -Provide manhole insert to fit the manhole frame rim upon which the manhole cover rests.

   a. Insert body shall be made of high density polyethylene copolymer material that meets ASTM D 1248, Class A, Category 5, Type III. Minimum thickness 1/8-inch.

   b. Gasket shall be of closed cell neoprene and have pressure sensitive adhesive on one side and be placed under the weight-bearing surface of the insert by the manufacturer.

   c. Lift strap of 1-inch woven polyethylene (seared on all cut ends to prevent unraveling. Strap shall be attached to the rising edge of the bowl off the insert by means of stainless steel rivet and washer.

   d. Vent shall have 1/8-inch hole located on the side wall of the insert 3/4-inch below the lip.

   e. Load capacity insert shall have certified test data verifying minimum collapse

load of 1500 lbs. minimum applied to a 5.50-inch square area in the center of the insert.

PART 3 - EXECUTION

3.01 GENERAL:

A. Provide all labor, equipment and materials and install all pipe, fittings, specials and appurtenances as indicated or specified.

3.02 PIPE INSTALLATION

A. Handling

1. Handle in a manner to insure installation in sound and undamaged condition.

a. Do not drop or bump.

b. Use slings, lifting lugs, hooks and usher devices designed to protect pipe, joint elements, and coatings.

2. Ship, move and store with provisions to prevent movement or shock contact with adjacent units.

3. Handle with equipment capable of work with adequate factor of safety against overturning or other unsafe procedures.

B. Installation

1. Installation, jointing and testing of pipe, fittings, and accessories shall be in accordance with the provisions of the applicable reference standard and in accordance with the requirements of this specification and related specifications referenced or contained in the contract documents for pressure or gravity sewers.

2. Lay pipe to slope gradient noted on the drawings.

3. Utilize equipment, methods, and materials insuring installation to lines and grades as indicated.

a. Do not lay on blocks unless pipe is to receive total con-crete encasement.

b. Use laser or minimum of 3 batter boards for control of line and grade.

c. Obtain approval from Engineer for method proposed for transfer of line and grade from control to the work.

4. Install pipe of size, material, strength class, and joint type with embedment shown for plan location.

5. Insofar as possible, commence laying of pipe at downstream end of line, and, install pipe with bell ends in direction of pipe laying. Sewer pipe shall have spigot ends in direction of flow. Obtain approval for deviations therefrom.

6. Clean interior of all pipe, fittings and joints prior to installation. Exclude entrance of foreign matter during discontinuance of installation.

a. Close open ends of pipe with snug fitting closures.

b. Do not let water fill trench. Include provisions to prevent flotation should water control measures prove inadequate.

c. Remove water, sand, mud and other undesirable materials from trench before removal of end cap.

7. Inspect pipe prior to installation to determine if any pipe defects are present.

8. Brace or anchor as required to prevent displacement after establishing final position.

9. Perform only when weather and trench conditions are suitable.

10. Observe extra precaution when hazardous atmospheres might be encountered.

11. Sanitary sewer relation to water mains:

a. Maintain 9-feet horizontal separation whenever possible.

b. When conditions prevent a lateral separation of 9- feet, sewer may be installed closer to a water main if:
(1) sewer constructed of PVC pipe meeting AWWA Specifications and having a minimum working pressure rating of 150 psi or greater and equipped with pressure type joints, and;
(2) the sewer line and water main are separated by a minimum vertical distance

of 2-feet and a minimum horizontal distance of 4-feet, measured between the nearest outside diameters of the pipes.

c. When a sanitary sewer crosses a water line and that portion of the sewer is constructed as described in 3.02 B.9.b.(1), the sewer may be placed no closer than 6 inches from the water line. The separation distance must be measured between the nearest outside pipe diameters. The sewer line shall be located at a lower elevation than the water line whenever possible and one length of the sewer pipe must be centered on the water line.

12. Auger or jack casing pipe in place where shown on plans.

C. Jointing

1. General requirements:

a. Locate joint to provide for differential movement at changes in type of pipe embedment, at changes from rock to soil trench bottom, and structures.

(1) Not more than 18 inches from structure wall, or

(2) Support pipe from wall to first joint with concrete cradle structurally continuous with base slab or footing of structure.

b. Perform in accordance with manufacturer's recommendations.

c. Clean and lubricate all joint and gasket surfaces with lubricant recommended.

d. Utilize methods and equipment capable of fully homing or making up joints without damage.

e. Check joint opening and deflection for specification limits.

D. Closure Pieces

1. Connect two segments of pipelines or a pipeline segment and existing structure with short sections of pipe fabricated for the purpose.

2. Observe specifications regarding location of joints, type of joints and pipe materials and strength classifications.

E. Temporary Plugs

1. Furnish and install temporary plugs at each end of work for removal by others when completed ahead of adjacent contract or where indicated.

2. Remove from pipe laid under adjacent contract in order to complete pipe connection when work by other contractor is finished prior to work at connection point under this contract.

3. Plugs

a. Use test plugs as manufactured by pipe supplier, or

b. Fabricate by Contractor of substantial construction.

c. Must be watertight against heads up to 20 feet of water.

d. Secure in place in a manner to facilitate removal when required to connect pipe.

3.03 MANHOLE INSTALLATION

A. Foundations to be poured in place, or to be pre-cast concrete base sections in accordance with the requirements of ASTM C-478. See Standard Details included herein.

B. Construct manhole foundation and channel inverts integrally for cast in place manhole foundations. See Standard Details included herein.

C. Pre-cast manhole sections of ruse with cast in place manhole bases may be installed after foundation concrete has attained 75% of design strength.

D. Forms for cast-in-place manhole may be installed after foundation concrete has attained 75% of design strength.

E. Manhole foundation and manhole may be installed simultaneously if manhole section is supported on concrete blocks and foundation concrete placed under and around bottom section.

F. Install manhole sections and joints in accordance with the requirements of the specification.

G. Heat materials for casting in place in freezing weather and protect work from cold; maintain temperature of work at 40° F. for at least 24 hours after placing.

H. Invert Channels: Inverts: The bottom of the manhole shall be provided with a "U" shaped channel that is as much as possible a smooth continuation of the inlet and outlet pipes.

1. For manholes connected to pipes less than 15-inches in diameter the channel depth shall be at least half the largest pipe diameter.

2. For manholes connected to pipes 15 to 24-inches in diameter the channel depth shall be at least three fourths the largest pipe diameter.

3. For manholes connected to pipes greater than 24-inches in diameter the channel depth shall be at least equal to the largest pipe diameter.

4. In manholes with pipes of different sizes, the tops of the pipes shall be placed at the same elevation and flow channels in the invert sloped on an even slope from pipe to pipe. The bench provided above the channel shall be sloped at a minimum of 0.5-inch per foot.

5. Where sewer lines enter the manhole higher than 24- inches above the manhole invert, the invert shall be filleted to prevent solids deposition.

6. Drop Manholes: A drop manhole as shown in the details shall be provided for a sewer entering a manhole more than 30-inches above the insert. A drop pipe of the same pipe material and size shall be provided for a sewer pipe entering a manhole more than 24-inches above the invert. The drop pipe shall be constructed on the outside of the manhole utilizing Wyes and Ells to provide a smooth drop and a clean out leg as shown on the details. The drop pipe shall be encased with concrete unless otherwise directed by the Engineer. Concrete shall extend from the bottom of the manhole base up to the bottom of the incoming sewer pipe, concrete shall also extend from the outside wall of the manhole out past the Wye on the Wye branch with a minimum of six inches (6") on each side.

I. Pipe Connection

1. Make watertight.

2. Use rubber gasket or size on size resilient connectors allowing for differential settlement conforming to ASTM C-9232.

3. All connections shall be at flowline of manhole.

J. Exterior Pipe Support (Rigid Pipe)

1. Support vitrified clay pipe on concrete cradle from manhole connection to first joint on each side of manhole as indicated.

2. Provide pipe joint within 18 inches of manhole wall.

K. Castings, frames, and fittings

1. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place and position before the concrete or mortar is placed.

2. The unit shall be protected until mortar or concrete is set.

L. Coatings if required in the specifications and details shall be applied after Engineer's approval of structure.

3.04 ACCEPTANCE TESTS FOR SEWER PIPELINES

A. Infiltration Testing

1. General

a. Maximum infiltration for each section of sewer pipe shall not exceed 50 gal/mile/day/inch of pipe diameter.

b. Infiltration, exfiltration or air test may be used to prove compliance with infiltration requirement.

c. Acceptance of air test or exfiltration results will not preclude rejection of work if infiltration is measured and exceeds limitation.

d. After backfilling and removing debris from each section of sewer line, conduct a line acceptance test under observation of the Engineer. Copies of all test results shall be made available to the Engineer upon request. Test the sanitary sewer lines in strict accordance with the following leakage test using low pressure air. If the test results indicate an unacceptable installation, locate the source of leakage, correct the defect, and retest until the installation is proven satisfactory.

e. Tests should conform to the following requirements:

(1) Infiltration or Exfiltration Tests. The total exfiltration as determined by

a hydrostatic head test, shall not exceed 50 gallons per inch diameter, per mile of pipe per 24 hours at a minimum test head of two feet above the crown of the pipe at the upstream manhole.

(2) When pipes are installed below the groundwater level an infiltration test shall be used in lieu of the exfiltration test. The total infiltration, as determined by a hydrostatic head test, shall not exceed 50 gallons per inch diameter per mile of pipe per 24 hours at a minimum test head of two feet above the crown of the pipe at the upstream manhole, or at least two feet above existing groundwater level, whichever is greater.

(3) For construction within the 25 year flood plan, the infiltration or exfiltration shall not exceed 10 gallons per inch diameter per mile of pipe per 24 hours at the same minimum test head.

(4) If the quantity of infiltration or exfiltration exceeds the maximum quantity specified, remedial action shall be undertaken in order to reduce the infiltration or exfiltration to an amount within the limits specified.

2. Air Test

a. Furnish all facilities required including: (1) Necessary piping connections. (2) Test pumping equipment. (3) Pressure gauges or manometers. (4) Bulkheads. (5) All miscellaneous items required.

b. Obtain approval from Engineer of equipment and methods proposed for use.

c. Test pipe in sections determined by Contractor and approved by Engineer.

d. Plug ends of line and cap or plug all connections to with-stand internal test pressures.

e. Introduce low pressure air until internal air pressure is 4.0 psi greater than the average back pressure of ground water above the pipe. (Add 0.43 psi for each vertical foot of ground water over the top of pipe.)

f. Allow two minutes for air pressure to stabilize.

g. Time required for pressure to decrease from 3.5 to 2.5 psi greater than average back pressure of any ground water above pipe shall not be less than time in following table for given diameters.

AIR TESTING TIMING

Pipe Diameter (Inches)	Minutes
6	3.0
8	4.0
10	5.0
12	5.5
15	7.0
18	8.5
21	10.0
24	11.5
27	12.75
30	14.0
36	17.0

h. Repeat test as necessary after all leaks and defects have been repaired.

C. Deflection Testing

1. Perform on flexible pipe.

2. Use a mandrel to test for a maximum 5 percent deflection unless otherwise specified in the contract document.

3. The mandrel shall be sized and constructed as listed on the applicable table on page 02570-1.

4. Conduct no sooner than thirty (30) days after final backfill.

5. Use no mechanical pulling devices.

6. Uncover all irregularity or pipe deformation exceeding 5%. Replace all damaged pipe reround non-damaged pipe and tamp the embedment and initial backfill.

7. Any pipe removed shall be replaced by use of gasketed repair couplings.

8. Conduct deflection test in the presence of the Owner's or Engineer's representative.

9. Manhole Testing: Successful passage of a vacuum or hydrostatic test shall be required for acceptance of all sanitary sewer manholes and sanitary sewer structures. If a

manhole fails a leakage test the manhole must be made watertight and retested. Hydrostatic testing shall be conducted by plugging with Engineer approved plugs all influent and effluent pipes in the manhole and filling the manhole with water to the top of the manhole cone with water. Additional water may be added over a twenty-four (24) hour period to compensate for absorption and evaporate losses. At the conclusion of the twenty-four (24) hour saturation period the manhole shall be filled to the top of the manhole cone and observed. The maximum leakage for hydrostatic testing shall be 0.025 gallons per foot diameter per foot of manhole depth per hour. Any loss within a thirty (3O) minute period shall be considered an unsuccessful test. Vacuum testing shall be performed in accordance with the requirements of ASTM C-1244, Specification for Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.

3.05 SERVICE CONNECTIONS:

A. Install service connections at each dwelling or business place, or as directed by Engineer.

B. Services wyes: install wyes, 4-inch branch diameter unless shown otherwise on plans. See standard detail, "Typical Service Connection", Dwg. D-05.

C. Risers: use in lieu of wyes for service connections where invert of sewer is 15 feet or more below ground surface or where shown on plans. See standard detail, "Typical Riser Service Connection".

D. Place suitable stopper in end of connection, cement stopper in place with cold bituminous joint compound.

E. Backfill trench only after recording exact location of service connection. Place engineer approved maker tape above service piping in excavation within 3-feet of the surface.

F. Make no connections to house sewers or extend service connections beyond this contract without written permission of Engineer.

G. Backfill trench only after entire service line and wye connection has been inspected and approved by Engineer. Compact as specified in Section 02221, "Trenching, Backfilling and Compacting".

H. Street crossings shall have a minimum of 3 feet of cover to sub-grade unless approved by Engineer.

I. No payment for service lines will be made until all specified requirements have been met.

3.06 CONNECTIONS TO EXISTING DRAINS AND SEWER SYSTEM

A. Connect existing sanitary service drains which cross new sewer line through equal sized wye.

B. Connect no storm drains to new sewers.

C. Connections to existing manholes:

1. Cut hole in existing manhole at required elevation.

2. Insert new sewer pipe flush with inside of manhole.

3. Grout new pipe in place.

4. Reconstruct manhole bottom to suit new connection.

D. Connections to existing sewer:

1. Build new manhole around existing sewer.

2. Break out existing sewer inside of manhole and construct bottom to suit new connection.

PART 4 - MEASUREMENT AND PAYMENT

4.01 SANITARY SEWER PIPE

A. Sanitary sewer pipe shall be measured from center of manhole to center of manhole or end of main. The sewer pipe shall be measured along the center of the pipe without considering fittings or other pipe connections. Sanitary sewer pipe will be paid at the contract bid price per linear feet complete in place at various depths for the type, size and depth constructed.

B. Compensation will be for furnishing all materials, labor, equipment, tools and incidentals required by the construction of the sanitary sewer pipe, all in accordance with the plans and these specifications.

C. If sanitary sewer pipe fails or does not pass appropriate mandrel test, Contractor shall remove and replace that part of the sewer pipe at no cost to the Owner.

4.02 SANITARY SEWER MANHOLE

A. Sanitary sewer manhole will be measured from the top of the ground to the sanitary sewer invert. Manholes shall be paid at the contract bid price per each at the various depths.

B. Compensation will be for furnishing all materials, labor, equipment, tools and incidentals required including any specified protective coating ring and cover, manhole insert, and/or A grade rings if not included as a separate pay item. All in accordance with the plans and specifications herein.

*** * * END OF SECTION * * ***

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02577 - HOT MIX ASPHALT CONCRETE PAVEMENT

PART 1 - GENERAL

1.01 DESCRIPTION:

A. Hot mix asphalt concrete (HMAC) pavement shall consist of a binder course, a leveling up course, a surface course or a combination of the courses as shown on the plans, or as directed by the ENGINEER.

B. HMAC pavement shall be composed of a compacted mixture of mineral aggregate and asphaltic material, constructed on previously completed and approved subgrade, subbase course, base course, or existing pavement.

C. HMAC pavement shall be in accordance with the specifications herein and in conformity with the lines, grades, quantities and typical sections in the contract and/or as directed by the ENGINEER.

1.02 QUALITY CONTROL:

A. HMAC pavement and its constituent part shall conform to the ASTM, AASHTO and/or TxDOT test methods noted below.

PART 2 - PRODUCTS

2.01 ASPHALTIC MATERIALS:

A. Asphalt cement binders shall be uncracked petroleum asphalt and shall be carefully refined, by steam, vacuum, or solvent, from asphaltic or semi-asphaltic base crude petroleum at a temperature not to exceed 700° F. Asphalt cements shall be free from thermal decomposition products and shall not be blended with any materials which have been subjected to cracking or produced from a crude petroleum source other than that of the original material. The asphalt cement shall not contain residues from non-asphaltic sources. Asphalt cement shall be homogeneous, free from water, and shall not foam when heated to 347° F.

B. Paving asphalt shall be classified by penetration or viscosity and shall conform to the requirements set forth in one of the following tables as designated by the ENGINEER. The CONTRACTOR may supply asphalt meeting the requirements of one of the following tables

provided that he obtains prior approval of the ENGINEER and with the provision that once approval has been obtained, that the CONTRACTOR will remain with that grade throughout the project.

TABLE 2577-1

Specification Designation	AASHTO Test Method	ASTM Test Method	40 to 50	60 to 70	85 to 100	120 to 150	150 to 200	200 to 250
Flash Point (Open cup) Min	T48	D92	--	450	450	450	425	350
Penetration of Orig. Sample at 77° F	T49	D5	40 to 50	60 to 70	85 to 100	120 to 150	150 to 200	200 to 250
Thin-Film Oven Loss, Hours at 325° F, % Max	T179	D1754	0.75	0.75	0.75	0.75	1.00	1.00
Test of Residue from Thin-Film Oven Test: % of Orig. Pen., Min.	T49	D5	52	50	50	50	50	50
Ductility at 77°F cm. after loss at 325° F, Min.	T51	D113	50	50	100	100	100	100
Solubility in CCl_4 Min.	T44*	None	99.5	99.5	99.5	99.5	99.5	99.5

Reaction to Spot Test	T102**	None	-0-	-0-	-0-	-0-	-0-	-0-	

* Procedure No. 1 with CCl_4 substituted for CS_2.

** Using 85% Standard Naphtha Solvent and 15% Xylene.

TABLE 2577-2

TYPE-GRADE	OA-30 Min.	OA-30 Max	OA-175*8 Min.	OA-175*8 Max	OA-400 Min.	OA-400 Max
Penetration at 32° F, 200g., 60 sec	15	--	--	--	--	--
Penetration at 77° F, 100g., 5 sec	25	35	150	200	--	--
Penetration at 115° F, 50g., 5 sec	--	65	--	--	--	--
Ductility at 77° F, 5 cm/min., cms: Original OA	2	--	70	--	--	--
Flash Point C.O.C., °F	450	--	425	--	425	--
Softening Point, R.&B., °F	185	--	95	130	--	--
Thin Film Oven Test, 1/8 in. Film 50 g., 5 hrs., 325° F, % Loss by wt.	--	0.4	--	1.4	--	2.0
Penetration of Residue, at 77° F, 100g., 5 sec. % of Original Pen	--	--	40	--	--	--
Ductility of Residue at 77° F, 5 cm/min., cms	--	--	--	100	--	--
Solubility in Trichloroethylene, %	99.0	--	99.0	--	99.0	--
Spot Test on Original OA	Neg.		Neg.		Neg.	
Float Test at 122° F, sec	--	--	--	--	120	150
Test on 85 to 115 Pen.Residue* Residue by Wt., %	--	--	--	--	75	--
Ductility, 77° F, 5 cm/min: Original Res., cms	--	--	--	--	100	--

Subjected to Thin Film Test, cms	--	--	--	--	100	--

* Determined by Vacuum Distillation (by evaporation if unable to reduce by vacuum).

** For use with Latex Additive only.

TABLE 2577-3

PROPERTIES	AC-1.5		AC-3		AC-5		AC-10		AC-20		AC-40	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Viscosity, 140° F. stokes. . . .	150	50	300	100	500	100	1000	200	2000	400	4000	800
Viscosity, 275° F. stokes. . . .	0.7	--	1.1	--	1.4	--	1.9	--	2.5	--	3.5	--
Penetration, 77° F. 100 g, 5 sec.	250	--	210	--	135	--	85	--	55	--	35	--
Flash Point, C.O.C.,°F.	425	--	425	--	425	--	450	--	450	--	450	--
Solubility in trichloroethylene, percent. . . .	99.0	--	99.0	--	99.0	--	99.0	--	99.0	--	99.0	--
Test on residues from thin film oven test: Viscosity, 140° F stokes. . . .	--	450	--	900	1500	--	3000	--	6000	--	--	12000
Ductility, 77° F, 5 cms per min,cms	100	--	100	--	100	--	70	--	50	--	30	--
Spot test	----------Negative for all grades----------											

C. A minimum of two percent, by weight, latex additive (solids basis) shall be added to the OA-175 Asphalt or to AC-5 Asphalt when specified in the contract. The latex additive shall be governed by the following specifications:

The latex is to be an anionic emulsion of butadiene-styrene low-temperature copolymer in water, stabilized with fatty-acid soap so as to have good storage stability, and possessing the following properties:

Monomer ratio, B/S	70/30
Minimum solids content	67%
Solids content per gal.@ 67%	5.3 lbs.
Coagulum on 80-mesh screen	0.01% max.
Type Anti-oxidant	staining
Mooney viscosity of Polymer(M/L 4@212° F)	100 min.
pH of Latex	9.4 - 10.5
Surface tension	28-42 dynes/cm2

The finished latex-asphalt blend shall meet the following requirements:

Viscosity at 140° F, stokes	1500 max.
Ductility at 39.2° F, 1 cm. per min., cm.	100 min.

D. Asphalt content shall be within the limits noted below:

Table 2577-4

HMAC Type	Percent of Mixture by Weight	Percent of Mixture by Volume
"A"	3.5 - 7.0	8.0 - 16.0
"B"	3.5 - 7.0	8.0 - 16.0
"C"	3.5 - 7.0	8.0 - 16.0
"D"	4.0 - 8.0	9.0 - 19.0
"F"	3.5 - 6.5	8.0 - 16.0

E. At the time of delivery of each shipment of asphalt, the vendor supplying the material shall deliver to the purchaser certified copies of the test report which shall indicate the name of the vendor, type and grade of asphalt delivered, date and point of delivery, quantity delivered, delivery ticket number, and results of the above-specified tests. The test report shall be certified and signed by an authorized representative of the vendor that the product delivered conforms to the specifications for the type and grade indicated.

F. Until the certified test reports and samples of the material have been checked by the ENGINEER to determine their conformity with the prescribed requirements, the material to which such report relates and any work in which it may have been incorporated as an integral component will be only tentatively accepted by the City. Final acceptance

will be dependent upon the determination of the ENGINEER that the material involved fulfills the requirements prescribed therefor. The certified test reports and the testing required in connection with the reports will be at the expense to the City.

G. Unless otherwise specified in these specifications or in the Supplementary Specifications, the various grades of paving asphalt shall be applied at a temperature range of from 210° F to 325° F, the exact temperature to be determined by the ENGINEER.

H. Paving asphalt shall be heated in such a manner that steam or hot oils will not be introduced directly into the paving asphalt during heating. The CONTRACTOR shall furnish and keep on the site, at all times, an accurate thermometer suitable for determining the temperature of the paving asphalt.

I. HMAC asphalt shall be the grade having the highest penetration, within specified limits, to produce a mix having a maximum stability of the compacted mixtures.

J. Only one (1) grade of asphalt shall be required unless otherwise shown on the plans or as required by the ENGINEER.

2.02 AGGREGATES:

A. HMAC aggregate will be tested in accordance with the following test standards:

AASHTO T-30	Mechanic Testing
AASHTO T-27	Passing No. 200 Sieve
AASHTO T-89	Liquid Limit
AASHTO T-96	Los Angeles Abrasion
AASHTO T-104	Soundness (Magnesium Sulfate)
ASTM C – 131	Resistance to Degradation
ASTM C – 136	Sieve Analysis
ASTM C – 2419	Sand Equivalence Value
TxDOT Tex -106-E	Method of Calculating Plasticity Index of Solids
TxDOT Tex-217 – F	(I & II) Determination of Deleterious Materials and Decantation Test
TxDOT Tex-203 – F	Quality Tests for Mineral Aggregates

B. Aggregates shall have an abrasion of not more than 40 for all courses except the non-skid surface course, which shall have an abrasion of not more than 35.

C. When properly proportioned, HMAC aggregate shall produce a gradation which will conform to the limitations for classification for HMAC type shown below, or as directed by the ENGINEER.

D. Course aggregate to be crushed limestone rock or crushed gravel with hydrated lime or limestone filler. (Crushed gravel shall be per TxDOT Specifications.)

E. Binder aggregate to be composed of 15% crushed limestone screening or as directed by the engineer.

1. Type "A" - Course Graded Base Course

	Percent Aggregate by Weight or Volume
Passing 2" sieve	100
Passing 1-3/4" sieve	95 to 100
Passing 1-3/4" sieve, retained on 7/8"sieve	16 to 42
Passing 7/8" sieve, retained on 3/8" sieve	16 to 42
Passing 3/8" sieve, retained on No. 4 sieve	10 to 26
Passing No. 4 sieve, retained on No. 10 sieve	5 to 21
Total retained on No. 10 sieve	68 to 84
Passing No. 10 sieve, retained on No. 40 sieve	5 to 21
Passing No. 40 sieve, retained on No. 80 sieve	3 to 16
Passing No. 80 sieve, retained on No. 200 sieve	2 to 16
Passing No. 200 sieve	1 to 8

2. Type "B" - Fine Graded or Leveling-Up Course

	Percent Aggregate by Weight or Volume
Passing 1" sieve	100
Passing 7/8" sieve	95 to 100
Passing 7/8" sieve, retained on 3/8" sieve	21 to 53
Passing 3/8" sieve, retained on No. 4 sieve	11 to 42
Passing No. 4 sieve, retained on No. 10 sieve	5 to 26
Total retained on No. 10 sieve	58 to 74
Passing No. 10 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 21
Passing No. 80 sieve, retained on No. 200 sieve	3 to 21
Passing No. 200 sieve	1 to 8

3. Type "C" - Course Graded Surface Course

	Percent Aggregate by Weight or Volume
Passing 7/8" sieve	100

Passing 5/8" sieve…….95 to 100
Passing 5/8" sieve, retained on 3/8" sieve ……...16 to 42
Passing 3/8" sieve, retained on No. 4 sieve……..11 to 37
Passing No. 4 sieve, retained on No. 10 sieve……..…11 to 32
Total retained on No. 10 sieve…….54 to 74
Passing No. 10 sieve, retained on No. 40 sieve…….....6 to 32
Passing No. 40 sieve, retained on No. 80 sieve…….4 to 27
Passing No. 80 sieve, retained on No. 200 sieve……...3 to 27
Passing No. 200 sieve…….1 to 8

4. Type "D" - Fine Graded Surface Course

	Percent Aggregate by Weight or Volume
Passing 1/2" sieve	..100
Passing 3/8" sieve	.85 to 100
Passing 3/8" sieve, retained on No. 4 sieve	..21 to 53
Passing No. 4 sieve, retained on No. 10 sieve	..…11 to 32
Total retained on No. 10 sieve	.54 to 74
Passing No. 10 sieve, retained on No. 40 sieve	.....6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	.4 to 27
Passing No. 80 sieve, retained on No. 200 sieve	...3 to 27
Passing No. 200 sieve	.1 to 8

5. Type "F" - Fine Graded Surface Course

	Percent Aggregate by Weight or Volume
Passing 3/8" sieve	..100
Passing No. 4 sieve	.95 to 100
Passing No. 4 sieve, retained on No. 10 sieve	..…..58 to 73
Passing No. 10 sieve, retained on No. 40 sieve	...….6 to 26
Passing No. 40 sieve, retained on No. 80 sieve	.3 to 13
Passing No. 80 sieve, retained on No. 200 sieve	.…2 to 11
Passing No. 200 sieve	..1 to 8

2.03 PRIME COAT:

A. Prime coat, when specified on the plans, or directed by the ENGINEER, shall be in accordance with Section 02250 - Prime Coat, and as specified herein.

B. Prime coat shall be applied to the surfaces of bases at least 12 hours prior to placing the HMAC unless otherwise directed by the ENGINEER.

C. Asphalt prime shall be applied uniformly at the rate of 0.10 to 0.30 gallon per square yard, or as directed by the ENGINEER. It shall be applied only when permitted by the ENGINEER and when the air temperature is not less than 40°F.

D. In order to prevent lapping at the junction of two applications, the distributor shall be promptly shut off. A hand spray shall be used to touch up all spots unavoidably missed by the distributor.

E. Immediately prior to application of the asphalt prime, an inspection will be made by the ENGINEER to verify that the base course has been constructed as specified. Also, all loose and foreign material shall be removed by light sweeping. Material so removed shall not be mixed with cover aggregate.

F. The surface to be primed shall be in a smooth and well-compacted condition, true to grade and cross section, and free from ruts and inequalities.

G. The pressure distributor used for applying prime coat material shall be equipped with pneumatic tires and shall be so designed and operated as to distribute the prime material in a uniform spray without atomization, in the amount and between the limits of temperature specified. It shall be equipped with a speed tachometer registering feet per minute and so located as to be visible to the truck driver to enable him to maintain the constant speed required for application at the specified rate.

H. The pressure distributor shall be equipped with a tachometer registering the pump speed, pressure gauge, and a volume gauge. The rates of application shall not vary from the rates specified by the ENGINEER by more than 10%. Suitable means for accuracy indicating at all times the temperature of the prime material shall be provided. The thermometer well shall be so placed as not to be in contact with a heating tube.

I. The distributor shall be so designed that the normal width of application shall be not less than 6 feet, with provisions for the application of lesser width when necessary. If provided with heating attachments, the distributor shall be so equipped and operated that the prime material shall be circulated or agitated through the entire heating process.

J. The asphalt prime coat should preferably be entirely absorbed by the base course and, therefore, require no sand cover. If, however, it has not been completely absorbed prior to the start of placing the asphalt concrete mixture and in the meantime it is necessary to permit traffic thereon, sufficient sand shall be spread over the surface to blot up the excess liquid asphalt and prevent it from being picked it up under traffic. Also, sand shall be used in areas where traffic may pass over the prime coat. Prior to placing the asphalt concrete, loose or excess sand shall be swept from the base. If a sand cover is

specified in the Supplementary Specifications or noted on the plans to cover asphalt prime, it shall be applied within 4 hours after the application of said prime coat, unless otherwise ordered by the ENGINEER.

K. Liquid asphalt shall be prevented from being sprayed upon adjacent pavements, structures, guard rails, guide posts, culvert markers, trees, and shrubbery that are not to be removed; adjacent property and improvements; other facilities or that portion of the traveled way being used by traffic.

L. The CONTRACTOR shall protect the prime coat against all damage and markings, both from foot and vehicle traffic. Barricades shall be placed where necessary to protect the prime coat. If, after the prime coat has been applied to the satisfaction of the ENGINEER and has been accepted, if it is disturbed by negligence on the part of the CONTRACTOR, it shall be restored at his expense to its condition at the time of acceptance. No material shall be placed until the prime coat is in a condition satisfactory to the ENGINEER.

2.04 TACK COAT:

A. If the asphalt concrete pavement is being constructed directly upon an existing hard-surfaced pavement, a tack coat shall be evenly and uniformly applied to the existing pavement prior to the placing of the new asphalt concrete. The surface shall be free of water, all-foreign material, or dust when the tack coat is applied. No greater area shall be treated in any one day than will be covered by the asphalt concrete during the same day. Traffic will not be permitted over tack coating.

B. Tack coat for HMAC shall consist of either rapid curing cut-back asphalt RC-2 diluted by addition of (not to exceed 15 percent by volume) an approved grade of gasoline and/or kerosene; emulsified asphalt, EA-11M diluted with 50 percent water, or a cut-back asphalt made by combining 50 to 70 percent of the asphaltic materials specified for the paving mixture with 30 to 50 percent gasoline and/or kerosene by volume.

C. Tack coat shall conform to the requirements of Section 2620 - Tack Coat, or as specified herein.

D. Application rate shall be 0.10 to 0.15 gallons per square yard, or as directed by the ENGINEER.

E. A similar tack coat shall be applied to the surface of any course if in the opinion of the ENGINEER, the surface is such that a satisfactory bond cannot be obtained between it and the succeeding course.

F. When required, the contact surfaces of all cold pavement joints, curbs, gutters, manholes, and the like shall be painted with a tack coat immediately before the adjoining asphalt concrete is placed. Asphalt tack coat shall be applied in controlled amounts as shown on the plans or determined by the ENGINEER. Surfaces where a tack coat is required shall be cleaned to the satisfaction of the ENGINEER before the tack coat is applied.

2.05 MINERAL FILLER:

A. Mineral filler, other than hydrated lime, shall consist of a thoroughly dry stone dust, portland cement or other mineral dust approved by the ENGINEER.

B. The mineral filler shall be free from foreign or other deleterious matter.

C. When tested by the method outlined in TxDOT Test Method Tex-200-F (Part 1 or 3), mineral filler shall meet the following gradations by weight:

Passing No. 30 Sieve	95-100%
Passing No. 80 Sieve	75%
Passing No. 200 Sieve	55%

2.06 ANTI-STRIPPING COMPOUND

A. Anti-Stripping compound, as required in the job mix formula, shall be furnished in the amounts calculated therein.

2.07 JOB MIX FORMULA:

A. A job mix formula based on representative samples, including filler if required, shall be determined by the ENGINEER, or submitted by the CONTRACTOR for approval of the ENGINEER.

B. The resultant job mix formula shall be within the master range for the specified type of HMAC.

C. The job mix formula for each mixture shall establish a single percentage of aggregate passing each required sieve size and a single percentage of bituminous material to be added to the aggregate and shall provide for 3 to 5% air voids in the resultant design mix. During the mix design process the ENGINEER will consider other factors, in addition to air voids and Marshall stability, such as durability, water resistance, and asphalt film thickness when developing the mix design.

D. After the job mix formula is established, mixtures for the project shall conform to the following tolerances which may fall outside of the specified master range:

	Percent by Weight or Volume as Applicable
Passing 1-3/4" sieve, retained on 7/8" sieve	± 5
Passing 7/8" sieve, retained on 5/8" sieve	± 5
Passing 5/8" sieve, retained on 3/8" sieve	± 5
Passing 3/8" sieve, retained on No.4 sieve	± 5
Passing No.4 sieve, retained on No.10 sieve	± 5
Total retained on No.10 sieve	± 5
Passing No.10 sieve, retained on No.40 sieve	± 3
Passing No.40 sieve, retained on No.80 sieve	± 3
Passing No.80 sieve, retained on No.200 sieve	± 3
Passing No.200 sieve	± 3
Asphaltic Material	± 0.05 by wt or 1.2 by vol.
Mixing Temperature	± 20° F

E. Asphaltic mixture shall be tested in accordance with TxDOT Test Method Tex-200-4 (Part I or Part III) and shall have the following laboratory values:

		Surface Course	Base Course
Density:	Minimum	95%	95%
	Maximum	98%	99%
	Optimum	96.5%	96.5%
Stability (Hveem)			
	Minimum	30%	30%
	Maximum	45%	45%
Stability (Marshall – 75 Blow Briquette)		1500 lbs	1500 lbs.
Voids		3 - 7%	4 - 7%
Voids Filled With Asphalt		75 - 85%	65 - 80%
Sand Equivalent		40	40

2.08 EQUIPMENT:

A. All equipment for the handling of all material, mixing, and placing of HMAC shall be in accordance with the provisions of TxDOT Item 340.

2.09 STOCKPILING, STORAGE, PROPORTIONING AND MIXING:

A. Stockpiling, storage proportioning and mixing operations shall be in accordance with the Provisions of TxDOT Item 340.

PART 3 - EXECUTION

3.01 WEATHER AND TEMPERATURE LIMITATIONS:

A. Asphaltic mixture, when placed with a spreading and finishing machine, or the tack coat shall not be placed when the air temperature is 50° F and falling, but may be placed when the air temperature is 40° F and rising.

B. Asphaltic mixture, when placed with a motor grader, shall not be placed when the air temperature is 60° F and falling, but may be placed when the air temperature is 50° F and rising.

C. Mat thicknesses of 1 inch or less shall not be placed when the temperature on which the mat is to be laid is below 50° F.

D. No tack coat or asphaltic mixture shall be placed when the humidity, general weather conditions and temperature and moisture condition of the base, in the opinion of the ENGINEER, are unsuitable.

E. If, after being discharged from the mixer and prior to placing, the temperature of the asphaltic mixture is 50° F or more below the temperature established by the ENGINEER, all or any part of the load may be rejected and payment will not be made for the rejected material.

3.02 EQUIPMENT:

A. Hauling Equipment:

1. Trucks used for hauling asphaltic mixtures shall have tight, clean, smooth

metal beds that have been thinly coated with a minimal amount of paraffin oil, lime slurry, tine solution or other approved material to prevent mixture adhesion to the bed.

2. The dispatching of hauling equipment shall be arranged so that all material delivered may be placed and all rolling completed during daylight hours, unless otherwise directed by the ENGINEER.

3. All trucks shall be equipped with a cover of canvas, or other suitable material to protect the mixture from weather or on hauls where the temperature of the mixture will fall below specified level. Use of covers will be as directed by the ENGINEER.

B. Rollers:

1. Pneumatic Tire Roller. This roller shall consist of not less than seven pneumatic tire wheels, running on axles in such manner that the rear group of tires shall cover the entire gap between adjacent tires of the forward group; mounted in a rigid frame; and provided with a loading platform or body suitable for ballast loading. The front axle shall be attached to the frame in such manner that the roller may be turned within a minimum circle. The tire shall afford surface contact pressures up to 90 pounds per square inch or more. The roller shall be so constructed as to operate in both a forward and a reverse direction with suitable provisions for moistening the surface of the tires while operating; and shall be approved by the ENGINEER.

2. Two Axle Tandem Roller. This roller shall be an acceptable power-driven, steel-wheel, tandem roller weighing not less than eight tons. It must operate in forward and reverse directions; contain provision for moistening the surface of the wheels while in motion; and shall be approved by the ENGINEER.

3. Three Wheel Roller. This roller shall be an acceptable power- driven, all steel, three wheel roller weighing not less than 10 tons. It must operate in forward and reverse directions; contain provisions for moistening the surface of the wheel while in motion; and shall be approved by the ENGINEER.

4. Vibratory Steel Wheel Roller. If approved for use by the OWNER, this roller shall have a minimum weight of six tons. The compactor shall be equipped with amplitude and frequency controls and shall be specifically designed to compact the material on which it is used. It shall be operated in accordance with the manufacturer's recommendations.

C. Straight Edges:

1. The CONTRACTOR shall provide an acceptable 16-foot straight-edge for surface testing. Satisfactory templates shall be provided as required by the ENGINEER.

D. Spreading and Finishing Machine:

1. Bituminous pavers shall be self-contained, power-propelled units, provided with an activated screed or a strike-off assembly, heated if necessary, and capable of spreading and finishing courses of bituminous plant mix material in lane widths applicable to the specified typical section and thickness shown on the plans.

2. The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to place the mixture uniformly in front of the screed. Design will be such that no part of the truck weight will be supported by the paver.

3. The screed or strike-off assembly shall effectively produce a finished surface of the required evenness and texture without tearing, shoving or gouging the mixture. When laying mixtures, the paver shall be capable of being operated at forward speeds consistent with satisfactory laying of the mixture. The screed shall be adjustable for both height and crown and shall be equipped with a controlled heating device.

4. The bituminous paver shall be equipped with an automatic leveling device controlled from an external guide. The initial pass for each course shall be made using a paver equipped with a 40-foot minimum external reference, except that these requirements will not apply when asphalt concrete is placed adjacent to portland cement concrete pavement. Subsequent passes may utilize the matching device of one foot minimum length riding on the adjacent lay.

3.03 CONSTRUCTION METHODS:

A. Spreading and Finishing:

1. The asphalt concrete mixture shall be laid on the approved surface, spread and struck off to the grade and elevation established. It shall be spread and compacted in layers as shown on the plans or as directed by the ENGINEER. Bituminous pavers shall be used to distribute the mixture either over the entire width or over such partial width as may be practicable.

2. The ENGINEER will determine a minimum placement temperature within a range from 220° F to 300° F which will produce the required density. The established placement temperature, which is measured immediately behind the laydown machine, shall not vary more than 20° F.

3. A conventional paver or suitable equipment approved by the ENGINEER may be used to place asphalt concrete material on shoulders depressed from the traveled lanes in order to establish a uniform typical section. Approval of the equipment used will be based upon the results obtained.

4. The asphalt concrete may be dumped from the hauling vehicles directly into the paving machine or it may be dumped upon the surface being paved and subsequently loaded into the paving machine; however, no asphaltic concrete shall be dumped from the hauling vehicles at a distance greater than 250 feet in front of the paving machine. When asphaltic concrete is dumped first upon the surface being paved, the loading equipment shall be self-supporting and shall not exert any vertical load on the paving machine. Substantially all of the asphaltic concrete dumped shall be picked up and loaded into the paving machine.

5. To achieve, as far as practicable, a continuous operation, the speed of the paving machine shall be coordinated with the production of the plant. Sufficient hauling equipment shall be available to insure continuous operation.

6. The control system shall control the elevation of the screed at each end by controlling the elevation of one end directly and the other indirectly either through controlling the transverse slope or alternately when directed, by controlling the elevation of each end independently, including any screed attachment used for widening, etc. Failure of the control system to function properly shall be cause for the suspension of the asphaltic concrete operations.

7. When dumping directly into the paving machine from trucks, care shall be taken to avoid jarring the machine or moving it out of alignment.

8. All courses of asphaltic concrete shall be placed and finished by means of self-propelled paving machines except under certain conditions or at certain locations where the ENGINEER deems the use of self-propelled, paving machines impracticable.

9. Self-propelled paving machines shall spread the asphaltic concrete without segregation or tearing within the specified tolerances, true to the line, grade, and crown indicated on the plans. Pavers shall be equipped with hoppers and augers which will place the asphaltic concrete evenly in front of adjustable screeds without segregation. Screeds shall include any strike-off device operated by tamping or vibrating action which is effective without tearing, shoving or gouging the asphaltic concrete and which produces a finished surface of an even and uniform texture for the full width being paved. Screeds shall be adjustable as to height and crown and shall be equipped with a controlled heating device for use when required.

10. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the mixture shall be spread, raked, fluted and compacted with hand tools. For such areas the mixture shall be dumped, spread and screed to give the required compacted thickness.

B. Compaction:

1. Rolling with the 3-wheel and tandem roller shall start longitudinally at the sides and proceed toward the center of the surface course, overlapping on successive trips by at least half the width of the rear wheels.

2. Alternate trips of the roller shall be slightly different in length.

3. Rolling with a pneumatic tired roller shall be as directed by the ENGINEER.

4. Rolling shall continue with no further compression can be obtained and all roller marks are eliminated.

5. The motion of the roller shall be slow enough at all times to avoid displacement of asphaltic materials. If displacement occurs, it shall be corrected immediately by use of rakes and fresh asphaltic mixtures, where required.

6. The roller shall not be allowed to stand on the surface course when it has not been fully compacted and allowed to cool.

7. To prevent adhesion of the surface course to the roller, the wheels shall be kept thoroughly moistened with water; however, excess water shall not be allowed.

8. All precautions shall be taken to prevent dripping of gasoline, oil, grease, or other foreign substances on the surface or base courses during rolling operations or while rollers are standing.

9. With the approval of the ENGINEER, a vibratory steel wheeled roller may be substituted for the 3-wheel roller and tandem roller.

10. Along forms, curbs, headers, walls and other places not accessible to the rollers, the mixture shall be thoroughly compacted with hot hand tampers, smoothing irons, or with mechanical tampers. On depressed areas, a trench roller may be used or cleated compression strips may be used under the roller to transmit compression to the depressed area.

11. Any mixture that becomes loose, broken, mixed with dirt, segregated, or is in any way defective shall be removed and replaced with fresh hot bituminous mixture, which shall be compacted to conform to the surrounding area. Any area showing

excess or deficiency of bituminous material shall be corrected immediately as directed by the ENGINEER.

C. In-Place Density:

1. In-place density shall be required for all mixtures except thin irregular depth leveling courses.

2. Each course, after final compaction, shall have a density of not less than 95 percent of the density developed in the laboratory test method outlined in TxDOT Bulletin C-14.

3. Density shall be determined with a portable nuclear test device in conformity with ASTM D-2950.76.

4. Calibration of the portable nuclear device will be established by the ENGINEER from cut pavement samples tested in accordance with AASHTO T-166 (weight, volume method). The density readings of the cut pavement samples determined in accordance with AASHTO T-166 (weight, volume method), and the density readings of the pavement samples determined by the portable nuclear test device in conformity with ASTM D 2950 will be correlated by the ENGINEER.

5. Other methods of determining in-place density may be used as deemed necessary by the ENGINEER.

6. It is intended that acceptance density testing will be done while the bituminous mixture is hot enough to permit further compaction if necessary. If the density of an acceptance section does not meet the specified requirements, the CONTRACTOR shall continue the compaction effort until the optimum density is obtained. Rolling for any compactive effort will not be allowed when the temperature of the mix is below 175° F unless authorized in writing by the ENGINEER. Rerolling the paved surface after it has initially cooled will not be allowed.

7. If in-place density tests of the mixture produce a value lower than specified and in the opinion of the ENGINEER is not due to a change in the quality of the material, production may proceed with subsequent changes in the mix and/or construction procedures until in-place density equals or exceeds the specified density.

8. In-place density tests will be provided by the ENGINEER unless otherwise specified.

D. Joints:

1. Placing of the asphalt concrete shall be as continuous as possible. Rollers shall not pass over the unprotected end of a freshly laid mixture unless authorized by the ENGINEER.

2. When plant mix bituminous pavement is placed over plant mix bituminous treated base or when plant mixed seal coat is placed over plant mix bituminous pavement, longitudinal joints shall be staggered at least 6 inches with relation to the longitudinal joints of the underlying course.

3. Transverse joints shall have a two foot or 12:1 minimum taper. Longitudinal joints shall have a one foot or 6:1 minimum taper. All transverse tapers shall be cut and squared off prior to commencing new work. Tapered longitudinal joints from previous operations shall be cleaned and tack coated if directed by the ENGINEER. All joints shall be completely bonded. The surface of each course at all joints shall be smooth and shall not show any deviations in excess of 3/16 of an inch when tested with a 10-foot straightedge in any direction.

4. When paving under traffic, the CONTRACTOR shall plan his daily surfacing operations on a schedule which will result in not more than one (1) day's operation of exposed longitudinal joints. The longitudinal joints shall not have a height greater than two (2) inches and shall not be left exposed longer than 24 hours.

E. Surface Tolerance:

1. Upon completion, the pavement shall be true to grade and cross section. Except at intersections or any changes of grade, when a 16 foot straight edge is laid on the finished surface parallel to the centerline of the roadway, the surface shall not vary from the edge of the straight edge more than 1/16-inch per foot. Areas that are not within this tolerance shall be brought to grade immediately following the initial rolling. After the completion of final rolling, the smoothness of the course shall be checked, and the irregularities that exceed the specified tolerances or that retain water on the surface shall be corrected by removing the defective work and replacing with new material as directed by the ENGINEER at the expense of the CONTRACTOR.

F. Manholes and Valve Covers:

1. Manhole frames and valve covers shall be adjusted prior to placing the surface course.

G. Compacted Thickness of HMAC Surface and Base Courses:

1. Surface Courses. The compacted thickness or depth of the asphaltic concrete surface course shall be as shown on the plans. Where the plans require a depth or thickness of the surface course greater than two inches compacted depth, same shall be placed

in multiple courses of equal depth, each of which shall not exceed two inches compacted depth. If, in the opinion of the ENGINEER, an additional tack coat is considered necessary between any of the multiple courses, it shall be applied at the rate as directed.

2. Base Courses. The compacted thickness or depth of each base course shall be as shown on the plans. Where the plans require a depth or thickness of the course greater than 4 inches, same shall be accomplished by constructing multiple lifts of approximately equal depth, each of which shall not exceed these maximum compacted depths. If, in the opinion of the ENGINEER, an additional tack coat is considered necessary between any of the multiple lifts, it shall be applied as hereinbefore specified and at the rate as directed.

H. Pavement Thickness Tests:

1. Pavement Thickness Test. Upon completion of the work and before final acceptance and final payment shall be made, pavement thickness test shall be made by the ENGINEER or his authorized representative unless otherwise specified in the special provisions or in the plans. The number and location of tests shall be at the discretion of the OWNER. The cost for the initial pavement thickness test shall be at the expense of the ENGINEER. In the event a deficiency in the thickness of pavement is revealed during normal testing operations, subsequent tests necessary to isolate the deficiency shall be at the CONTRACTOR's expense.

I. Price Adjustment for Roadway Density

1. The payment of the unit price will be adjusted for roadway density as outlined in the following table. The adjustment will be applied on a lot by lot basis for each lift. The adjustment will be based on the average of five density tests. The price adjustment will be applied to the entire asphalt concrete mix which includes the HMAC aggregate, the asphalt cement and anti-stripping compound, if used.
2.

Average Density % of Lab Density	Percent of Contract Price To Be Paid
Above 95%	100%
94.0 to 94.99	96%
93.0 to 93.99	91%
92.0 to 92.99	85%
Less than 92.00	*

* This lot shall be removed and replaced to meet specification requirements as ordered by the ENGINEER. In lieu thereof, the CONTRACTOR and the ENGINEER may agree in writing that for practical purposes, the lot shall not be removed and will be paid for at 50% of the contract price.

PART 4 - MEASUREMENT AND PAYMENT

4.01 INCIDENTAL WORK:

A. Prime coat, anti-stripping compound, where used, and tack coat shall not be measured for direct payment, but shall be considered as subsidiary work pertaining to the placing of asphaltic mixtures of the contract price.

4.02 MEASUREMENT:

A. Hot-mix asphalt concrete material shall be measured by the ton of 2,000 pounds or by the square yard of the type or types used in the completed and accepted work, as shown on the HMAC Solicitation Bid Sheet.

B. Weight shall be determined by a certified scale approved by the OWNER and recorded serially numbered weight tickets, identifying the vehicle and presented to the ENGINEER's representative on the job.

4.03 PAYMENT:

A. Work performed and materials furnished, as prescribed by this item, measured as provided herein, shall be paid at the unit bid price per ton or square yard for the type or types of hot mix asphalt concrete pavement shown on the proposal.

B. Unit bid price shall be payment in full for quarrying; furnishing all materials; for all heating; mixing; hauling; cleaning existing base course or pavement; placing asphaltic mixtures; rolling and finishing; and for all labor, tools, equipment and incidentals necessary to complete the work, including the work and materials involved in the application of prime coat and tack coat.

*** * * END OF SECTION * * ***

SECTION 02660 - WATER LINES

PART 1 - GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 2241	(1988) Polyvinyl Chloride (PVC) Pressure-Rated Pipe (SDR Series).
ASTM D 2564	(1988) Solvent Cements for Polyvinyl Chloride (PVC) Plastic Pipe and Fittings.

AMERICAN WATER WORKS ASSOCIATION (AWWA)

AWWA B301	(1987) Liquid Chlorine.
AWWA C110	(1987) Ductile-Iron and Gray-Iron Fittings, 3 In. through 48 In., for Water and Other Liquids.
AWWA C500	(1986) Gate Valves for Water and Sewage Systems.
AWWA C651	(1986) Disinfecting Water Mains.
AWWA C900	(1981; Errata) Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. through 12 In. for Water.

1.1.1 Piping for Water Distribution Lines 3 Inches or Larger

Piping for water distribution lines 3 inches or larger shall be ductile iron, Polyvinyl Chloride (PVC) plastic, or reinforced concrete, unless otherwise shown or specified.

1.1.2 Excavation, Trenching, and Backfilling for Water Lines

Excavation, trenching, and backfilling shall be in accordance with the applicable provisions of Section 02221 TRENCH EXCAVATION, BACKFILL AND COMPACTION, except as modified herein.

PART 2 - PRODUCTS

2.1 MATERIALS

Materials shall conform to the respective specifications and other requirements specified below.

2.1.1 Pipe

2.1.1.1 Polyvinyl Chloride (PVC) Plastic Pipe

a. Pipe 4-Inch through 12-Inch Diameter: Pipe, couplings and fittings 4-inch through 12-inch diameter shall conform to the requirements of AWWA C900, Class 150, CIOD pipe dimensions only, elastomeric-gasket joint only, unless otherwise shown or specified.

b. For pipe 4-inch through 12-inch diameter, fittings and specials shall be cast iron, bell end in accordance with AWWA C110, 150 psi pressure rating unless otherwise shown or specified, except that profile of bell may have special dimensions as required by the pipe manufacturer; or may be fittings and specials of the same material as the pipe with elastomeric gaskets, all in conformance with the requirements of AWWA C900. Fittings shall be for bell and spigot pipe or plain end pipe, or as applicable.

2.1.2 Valves

2.1.2.1 Gate Valves

Gate valves shall be designed for a working pressure of not less than 150 psi. Valve connections shall be as required for the piping in which they are installed. Valves shall have a clear waterway equal to the full nominal diameter of the valve, and shall be opened by turning

counterclockwise. The operating nut or wheel shall have an arrow, cast in the metal, indicating the direction of opening.

Valves 3 inches and larger shall be iron body, bronze mounted, and shall conform to AWWA C500. Flanges shall not be buried. An approved pit shall be provided for all flanged connections.

2.1.2.2 Vacuum and Air Relief Valves

Vacuum and air relief valves shall be of the size shown and shall be of a type that will release air and prevent the formation of a vacuum. The valves shall automatically release air when the lines are being filled with water and shall admit air into the line when water is being withdrawn in excess of the inflow. Valves shall be iron body with bronze trim and stainless steel float.

2.1.3 Valve Boxes

Valve boxes shall be cast iron. Cast-iron boxes shall be extension type with slide-type adjustment and with flared base. The minimum thickness of metal shall be 3/16-inch. The word "WATER" shall be cast in the cover. The boxes shall be of such length as will be adapted, without full extension, to the depth of cover required over the pipe at the valve location.

2.1.4 Fire Hydrants (See Detail Sheet)

2.1.4.1 Disinfection

Chlorinating materials shall conform to the following: Chlorine, Liquid: AWWA B301.

PART 3 - EXECUTION

3.1 INSTALLATION

3.1.1 Placing and Laying

Pipe and accessories shall be carefully lowered into the trench by means of derrick, ropes, belt slings, or other authorized equipment. Under no circumstances shall any of the water-line materials be dropped or dumped into the trench. Water shall be kept out of the trench until joining is completed. When work is not in progress, open ends of pipe, fittings, and valves shall be securely closed. Where any part of the coating or lining is damaged, the repair shall be made by the Contractor at his

expense in a satisfactory manner. Pipe ends left for future connections shall be valved, plugged, or capped, and anchored.

3.1.1.1 Connections

Where connections are made between new work and existing mains, the connections shall be made by using specials and fittings to suit the actual conditions.

3.2 HYDROSTATIC TESTS

3.2.1 Pressure Test

After the pipe is laid, the joints completed, fire hydrants permanently installed, and the trench partially backfilled leaving the joints exposed for examination, the newly laid piping or any valved section of piping shall, unless otherwise specified, be subjected for 1 hour to a hydrostatic pressure test of 200 psi. Joints showing visible leakage shall be replaced. Cracked or defective pipe, joints, fittings, hydrants and valves, discovered in consequence of this pressure test shall be removed and replaced.

3.2.2 Leakage Test

Leakage test shall be conducted after the pressure tests have been satisfactorily completed. The duration of each leakage test shall be at least 2 hours, and during the test the water line shall be subjected to 200 psi pressure. Leakage is defined as the quantity of water to be supplied into the newly laid pipe, or any valved or approved section thereof, necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled. No piping installation will be accepted until the leakage is less than the number of gallons per hour as determined by the formula:

$L = 0.0001351\ N\ D\ (P \text{ raised to } 1/2 \text{ power})$

In which L equals the allowable leakage in gallons per hour; N is the number of joints in the length of pipeline tested; D is the nominal diameter of the pipe in inches; and P is the average test pressure during the leakage test, in psi gauge.

3.3 DISINFECTION

Before acceptance of potable water operation, each unit of completed waterline shall be disinfected as prescribed by AWWA C651.

End of Section

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 02665 - WATER SYSTEMS

PART I - GENERAL

1.01 SECTION INCLUDES:

A. Water mains including valves, valve boxes, fire hydrants, blocking, fittings and other appurtenances.

1.02 REFERENCES:

A. American Society for Testing and Materials (ASTM):
   1. ASTM Dl 784 - Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80 and 120.
   2. ASTM D2241 - Poly (Vinyl Chloride) (PVC) Plastic Pipe (SOR-PR).
   3. ASTM D2466 - Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.

B. American Water Works Association (AWWA):
   1. AWWA C105 - Polyethylene Encasement for Ductile Iron Piping for Water and Other Liquids.
   2. AWWA C110 - Ductile-Iron and Gray-Iron Fittings, 3 Inches through 48 Inches
   3. AWWA C151 - Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds
   4. AWWA C 1 53 - Ductile Iron Compact Fittings, 3 inches through 16 inches
   5. AWWA C502 - Dry-Barrel Fire Hydrants.
   6. AWWA C509 - Resilient Seated Gate Valves, for Water and Sewerage Systems.
   7. AWWA C550 - Protective Epoxy Interior Coatings for Valves and Hydrants.
   8. AWWA C900 - Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. through 12 in., for Water.

1.03 SUBMITTALS:

A. Product Data: Manufacturer's product data sheets on fire hydrants, valves, and valve boxes.

1.04 PROJECT CONDITIONS:

A. Perform no pipe work in fill areas until embankment or fill has been completed to at least 2 ft. above top of pipe and has been properly compacted.

PART 2 - PRODUCTS

2.01 POLYVINYL CHLORIDE (PVC) PIPE:

A. PVC Water Pipe (4-inch through 12-inch): AWWA C900, pressure class 150.

B. PVC Water Pipe (smaller than 4-inch): ASTM D1784 and ASTM D1785 or ASTM D2241.

C. PVC water pipe shall bear NSF seal of approval and shall have a minimum water pressure rating of 200 psi.

2.02 DUCTILE IRON PIPE:

A. Type: AWWA Cl51 , Class 52.

B. Wrapping: Buried pipe wrapped with 8 mil polyethylene encasement, AWWA C105.

2.03 FITTINGS:

A. Buried Fittings (size 4-inch through 12-inch): Ductile iron compact type with push-on joints, ANSI A21.53/AWWA C153, or standard fittings, AWWA C110. Use mechanical joints with retainer glands where required for complete system.

B. Buried Fittings (smaller than 4 inches): Schedule 40 PVC, ASTM D2466, NSF approved and sealed or marked for potable water use.

C. Rating: Fittings working pressure rated to 250 psi.

D. Wrapping: Buried ductile iron fittings wrapped with 8-mil polyethylene encasement, AWWA C105.

2.04 GATE VALVES:

A. Gate Valves 4-inch through 12-Inch Size for Buried Service.
1. Type: Solid wedge, resilient seat type.
2. Standard: Except as otherwise specified, AWWA C509.
3. Working Pressure: Rated to 250 psi minimum.
4. Stem: Non-rising stem with 0-ring valve packing and 2-inch square nut.
5. Joints: Push-on joints except as specified otherwise.
6. Opening: Counterclockwise.
7. Finish: Ferrous surfaces of valve interior epoxy coated, AWWA C550.
8. Wrapping: Wrap valve body with 8 mil polyethylene encasement in a manner which will not interfere with valve operation.

2.05 FIRE HYDRANTS:

A. Quality: AWWA C502, and as modified by these Specifications.

B. Type: Compression-type shutoff closing with pressure, collision safety construction and dry top designed for 250 psi working pressure. Fabricate working parts from bronze.

C. Equip barrel with a bronze 6-inch inlet connection having a self-centering drain valve. Provide connection with two 2-1/2 inch inside diameter hose nozzles and a 4-1/2 inch connection. Use National Standard threads at connections.

D. Equip nozzles with nozzle caps securely fit and with cap gaskets of rubber. Other hydrant gaskets may be of rubber composition, lead or impregnated fiber composition. Attach nozzle caps to the barrel with chains not less than 1/8-inch diameter.

E. Provide a hydrant with bury length (the distance from the bottom of inlet line to ground line) as shown on Drawings.

F. Design barrel joint connecting upper and lower hydrant sections so that hydrant shutoff valve will remain closed and reasonably tight against leakage in the event of an impact resulting in damage or breaking of hydrant above or near ground level. Provide the joint with a breakable bolt flange or breakable coupling that will include a minimum of eight bolts. Provide valve stem with a breakable stem coupling opposite breakaway barrel.

G. Provide valve stem with a bronze sleeve and suitable seals and a travel stop. Do not expose operating threads to water. Lubricate threads fully when opening and closing shutoff valve from lubricating reservoir sealed top and bottom. Equip valve stem with a thrust bearing or lubricated thrust collar to minimize operating torque.

H. Furnish a valve stem which opens counterclockwise.

I. Provide a valve stem operating nut that is nonrising, pentagonal shape, with 1-1/2 inch from point to flat and depth of 1-1/4 inch.

J. Operating parts, including valve seat, shall be removable through barrel, without digging.

K. Paint fire hydrants with one coat of red oxide primer and two finishing coats of alkyd paint red color for barrels and white color for bonnet.

2.06 VALVE BOXES:

A. Qualities: Cast iron valve boxes for buried valves, 2-section adjustable screw type, suitable for depth of cover over pipe as shown, with base, top section and cover.
   1. Size: At least 5 inches in diameter, 3/16 inch thick, with suitable cast iron bases and covers.
   2. Coatings: Coat valve boxes, bases and covers by dipping in hot bituminous varnish.
   3. Cover: Locking type covers. Identify covers with casting, WATER.

B. Source: Mueller H-10360.

PART 3 - EXECUTION

3.01 PREPARATION:

A. Staking of waterline shall be provided by owner.

B. Prior to installing valves or fire hydrants, remove foreign matter from within the valves. Inspect the valves in open and close position to verify that parts are in satisfactory working condition.

C. All pipe materials and installation procedures shall conform to the requirements of Texas Natural Resource Conservation Commission (TNRCC).

3.02 SETTING VALVES, VALVE BOXES AND FIRE HYDRANTS:

A. Install valves, valve boxes and fire hydrants where shown on Drawings. Set valves and fire hydrants plumb and as detailed on Drawings. Center valve boxes on valves. Locate valves away from roads or streets. Carefully tamp earth around each valve box for a minimum radius of 4 feet or to undisturbed trench face if less than 4 feet.

B. Place a concrete thrust block opposite pipe connections, set against vertical face of trench to prevent hydrant from blowing off line. If character of soil is such that fire hydrant cannot be securely wedged in this manner, provide bridle rods and rod collars of not less than 3/4 inch stock protected by a coat of acid-resisting paint.

C. Place at least 5 cubic feet of gravel or crushed stone around base of fire hydrant to ensure drainage. Do not block drain holes. Compact backfill thoroughly around hydrant to grade line.

3.03 PIPE INSTALLATION:

A. Preparation:
1. Do not lay pipe in water, or when trench or weather are unsuitable for work. Keep water out of trench until jointing is complete and bedding is placed to top of pipe. When work is not in progress, close ends of pipe and fittings securely so that no trench water, earth or other substance will enter pipes or fittings.
2. Keep inside of pipe free from foreign matter during operations by plugging or other approved method.
3. Place pipe so that full length of each section rests solidly upon pipe bed, with recesses excavated to accommodate bells and joints. Take up and relay pipe when grade or joint is disturbed after laying.
4. Locate no joints closer than 9 feet from sanitary sewer cross-overs.
5. Where pipe ends are left for future connections, install valves, plugs or caps and thrust blocking, as shown.

6. Handle pipe and accessories so that pipe placed in trench is sound and undamaged. Take particular care not to injure pipe coating when applicable. Do not place other pipe or anything else inside of pipe or fitting after coating has been applied.
7. Cut neatly, using approved type mechanical cutter without damaging pipe. Use wheel cutters when practicable.
8. Before installation, inspect pipe for defects and tap with a light hammer to detect cracks. Replace sections of pipe found to be defective, damaged or unsound, before or after laying.
9. Wrap ductile iron pipe, fittings and accessories with 8 mil polyethylene film, AWWA C105, with edges overlapped and securely taped with duct tape to prevent contact between pipe and surrounding bedding. Repair punctures with duct tape to restore the protective continuous wrap before backfilling.

B. Pipe Bedding and Backfill: See Typical Detail Sheets

C. Placing and Laying:
1. Bury water lines and fire hydrants leads as shown on Drawings.
2. Do not exceed pipe manufacturer's recommendations for deflections from straight line or grade as required by vertical curves, horizontal curves, or offsets. If alignment requires deflections in excess of these limitations, furnish special bends or sufficient number of shorter lengths of pipe to provide angular deflections within limits set or approved.

D. Joints:
1. Install mechanical joints in accordance with manufacturer’s recommendations.
2. Make push-on joints in accordance with manufacturer's recommendations.

E. Anchorage of Fittings - Thrust Block: Anchor tees, bends and plugged, valved or capped ends of lines of water mains with concrete thrust blocks as necessary and as shown on Drawings. Place blocks so that the joints will be accessible for inspection and repair.

3.04 SERVICE CONNECTIONS:

A. Provide water service leads and include corporation and meter stops and meter vault installed as shown.

B. Service Connections:
1. One inch and smaller: Corporation stops. Only AWWA threads will be allowed.
2. Up to 2 inches: Service clamps. Furnish a malleable iron galvanized service clamp with 250 psi working pressure and include a neoprene gasket cemented in place.
3. Larger than 2 inches: Pipe fittings.

C. Make service connections in accordance with manufacturers recommendations.

D. Connections shall be located no closer than one foot from fitting or pipe joint.

3.05 STERILIZATION:

A. After completion of hydrostatic tests, flush and sterilize water mains in accordance with TNRCC AWWA C651 , utilizing chlorinating and procedures reviewed by Engineer.
   1. Disinfect the water distribution system using chlorine or chlorine compounds added to the water resulting in 25 ppm (parts per million) chlorine.
   2. After the water containing this amount of chlorine has been in contact with the pipe and appurtenances at least 24 hours, replace the chlorine treated water with water to be transported normally.

B. Before beginning sterilization, remove dirt and foreign matter from water mains by a thorough flushing with clean water.

C. Provide erosion control devices necessary to prevent soil erosion as a result of flushing or draining water lines.

3.06 FIELD QUALITY CONTROL TESTING:

A. Perform hydrostatic tests and bacteriological tests on new water lines and lowered/relocated water lines.

B. Hydrostatic Tests:
   1. General:
      a. After pipe has been laid and initial backfill and blocking completed, test water lines hydrostatically to a test pressure of 150 psi. Achieve test pressure with compressed air.

      b. Provide connections, pumps, gauges, meters and other equipment necessary for performance of tests.

   2. Procedures:
      a. Before applying specified pressure test, expel all air from the pipe by filling each valved section of pipe with water. Provide taps necessary to expel trapped air.
      b. Examine all piping, flings, valves and joints during testing. Fully operate each valve in the test section during testing.
      c. Test each section for a minimum of 2 hours when joints are exposed, 8 hours when joints are covered.
      d. Test pipe lines in lengths between valves or plugs of not more than 1000 feet

   3. Maximum Allowable Leakage: Not to exceed 12 gallons per inch of pipe diameter per mile of pipe per 24 hours, except replace joints regardless of total leakage quantity where visible leaks occur at exposed joints and where leaks are evident at the surface of joints that are covered.

   4. Replace defective material with sound material, and repeat test procedures until approved is obtained.

C. Bacteriological Tests: After sterilizing and flushing mains, obtain services of an approved laboratory to gather representative samples and conduct bacteriological tests in accordance with AWWA C651. Test results shall meet TNRCC. Make necessary corrections, repeat sterilization and flushing procedures, and retest affected lines if test results are not acceptable. Repeat this procedure until satisfactory test results are obtained.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 03001 – CONCRETE FORM WORK, REINFORCEMENT, AND PLACEMENT OF CONCRETE (CIVIL)

1. General Labor:
   Work under this Section includes furnishing all labor for setting forms, trenching for beams, placement of moisture barrier, placement of reinforcement steel, placement and finishing of concrete slabs, walks and curbs shown, and removal of all forms.

2. Contractor will supply all materials including concrete, forms, stakes, bracing, nails, 6 mil poly vapor barrier, bar ties, tie wire, half bricks, any required expansion material, keyways, etc. New or like new forms and shall be used. Provide curing compound.

3. Formwork:
   a. Conform to shape and dimensions shown on plan; maintain grade, square and level; proper bracing, clean and tight. Tolerance within 1/8" in 10'-0".
   b. Provide for inserts, templates, and set anchor bolts furnished by others.
   c. If existing structures are encountered, such as old concrete beams, which interfere with proper placement of this work, Owner will pay for labor required when approved by the Architect.
   d. All forms shall be new or like new.

4. Reinforcement:
   a. Accurately bend and place all bars. Use metal chairs.
   b. Insure adequate cover on all steel
   c. Place mesh in center of flatwork, lap one full mesh. (also concrete earth retainers.
   d. Refer to Contract Drawings and details for detailed requirements.
   e. Comply with requirements of ACI 315 manual for reinforced concrete structures.

5. Concrete:
   All concrete shall be provided to achieve a minimum strength of 3,000 psi after 28 days. Utilize Portland cement, ASTM C-150 type I or III, 5 sacks per cubic yard; coarse aggregate, ASTM C-33, graded 1/4" to 1-1/2". No fly ash or calcium chloride permitted. Admixtures only with approval of engineer. Slump maximum 6".

6. Placement of Concrete:
   a. Furnish adequate labor to expeditiously place and finish all concrete for any given section as required by the Architect.
   b. Thoroughly work concrete between and around reinforcement. Vibrate to secure complete filling and to minimize honeycomb.
   c. Place concrete under good weather conditions; avoid heating (40° and rising). Comply with ACI 305 & 306 for requirements for hot and cold weather placement.
   e. Finishing - Walks:
      (1) Power float to level with cross slope of 1/4" per ft. for drainage.
      (2) Wash and broom as approved by Architect.
   f. Rub concrete faces immediately after forms removed to eliminate honeycomb.
   g. For each 50 C.Y. of concrete placement, any concrete pour over 10 c.y. take 1 set of 4 cylinders. One specimen to be tested at 28 days and one specimen retained in reserve for later testing, if required. All testing shall be by independent lab approved by the Owner. Owner to pay for all testing.
   h. For repair of defective surfaces, consult with the Architect before doing repairs.

END OF SECTION

PALMER PAVILION RENOVATIONS
McALLEN, TX

SECTION 03300 - CAST-IN-PLACE CONCRETE (CIVIL)

PART I - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary. Conditions and Division I Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section specifies cast-in-place concrete, including formwork, reinforcing, mix design, placement procedures, and finishes.
Precast concrete is specified in other Division 3 Sections.

1.03 SUBMITTALS

A. Submit the following in accordance with Conditions of Contract and Division I Specifications Sections.

B. Shop drawings for reinforcement, prepared for fabrication, bending and placement of concrete reinforcement. Comply with ACI SP-66 (88), "ACI Detailing Manual" showing bar schedules stirrup spacing, diagrams of bent bars, and arrangement of concrete reinforcement. Include special reinforcement required for openings through concrete structures.

1.04 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following codes, specifications, and standards, except where more stringent requirements are shown or specified:

ACI 318, "Building Code Requirements for Reinforced Concrete."

Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice."

PART 2 - PRODUCTS

2.01 FORM MATERIALS

A. Forms for Exposed Finish Concrete: Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish In largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings.

Use plywood complying with U.S. Product Standard PS-I "B-B (Concrete Form) Plywood,: Class 1, Exterior grade or better, mill-oiled and edge-sealed, with each piece bearing legible edges and one side for tight fit.

A. Forms for Cylindrical Columns and Supports: Metal, fiberglass-reinforced plastic, or paper for fiber tubes. Provide paper or fiber tubes of laminated plies with water-resistant adhesive and wax-ii-impregnated exterior for weather and moisture protection. Provide units with sufficient wall thickness to resist wet concrete loads without deformation.

B. Form Coatings: Provide commercial formulation form-n-coating compounds with a maximum of 350 mg/l that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

C. Form Ties: Temporary- fabricated, adjustable-length removable or snap-off metaffonnties, designed to prevent form deflection and to prevent spalling concrete upon removal. Provide units that will leave no metal closer than 1-1/2 inches to exposed surface.

2.02 REINFORCING MATERIALS

A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.

B. Supports for Reinforcement: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Use wire-bar-type supports complying with CRSI specifications.

C. For slabs-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.

D. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports are in contact with forms, provide supports with legs that are plastic protected (CRSI, Class 1) or stainless steel protected (CRSI, Class 2).

2.03 CONCRETE MATERIALS

A. Portland Cement: ASTM C 150, Type I for general use unless otherwise noted on Plans.

B. Normal Weight Aggregates: ASTM C 33 and as herein specified. Provide aggregates from a single source for exposed concrete.

C. For exterior exposed surfaces, do not use fine or coarse aggregates containing spalling-causing deleterious substances.

D. Lightweight Aggregate: ASTM C 330.

E. Water: Drinkable.

F. Admixtures General: Provide admixtures for concrete that contain not more than 0. I percent chloride ions.

G. Air-Entraining Admixture: ASTM C 260, certified by manufacturer be compatible with other required admixtures.

H. Products: Subject to compliance with requirements, provide one of the following:

"Air-Tite," Cormix
"Air Mix" or "Pen--Air," Euclid Chemical Co.
"Darex AEA" or "Daravair," W.R. Grace & Co.
"MB-VR" or "Micro-Air," Master Builders, Inc.
"Sealtight AEA," W.R. Meadows, Inc.
"Sika AER," Sika Corp.

I. Water-Reducing Admixture: ASTM C 494, Type A.

J. Products: Subject to compliance with requirements, provide one of the following:

"PSI N," Cormix.
"Eucon WR-75," Euclid Chemical Co.
"WRDA," W.R. Grace & Co.
"Pozzolith Normal" or "Polyheed," Master Builders, Inc.
"Prokrete-N," Prokrete Industries.
"Plastocrete 161," Sika Corp.

K. High-Range Water-Reducing Admixture (Super Plasticizer): ASTM C 494, Type F or Type G.

L. Products: Subject to compliance with requirements, provide one of the following:

"PSI Super," Cormix.
"Eucon 37," Euclid Chemical Co.
"WRDA 19: or "Daracem," W.R. Grace & Co.
"PSP," Prokrete Industries.
"Sikament 300," Sika Corp.

2.04 RELATED MATERIALS

A. Preformed Plastic Waterstops: Federal Specification SS-S-210A.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following:

Synco-Flex Products, Inc.

A.. Location of Waterstops: Waterstops shall be provided in all construction and expansion points as shown on the plans.

B. Waterstops shall also be provided in all construction joints not shown on the plans as follows:

1. All construction joints in structures confining liquids up to a point one foot above maximum water level.
2. All structures enclosing dry areas at least one foot below finish grade.

C. Granular Base: Evenly graded mixture of fine and course aggregates to provide, when compacted, a smooth and even surface below slabs on grade.

D. Sand Cushion: Clean, manufactured or natural sand.

E. Vapor Retarder: Provide vapor retarder cover over prepared base material under all slabs on grade for buildings.

F. Use only materials that are resistant to deterioration when tested in accordance with ASTM E 154, as follows:

Polyethylene sheet not less than 8 mils thick.

G. Liquid Membrane-Forming Curing Compound: Liquid-type membrane-forming curing compound complying with ASTM C 309, Type 1, Class A. Moisture loss not more than 0.055 gr./sq. cm. when applied at 200 sq. ft./gal.

H. Available products: Subject to compliance with requirements, projects that may be incorporated in the work include, but are not limited to, the following:

"Spartan-Cote," The Burke Co.
"Hardtop," Cormix.
"Eucocure," Euclid Chemical Co.
"Masterkure," Master Builders, Inc.
"CS-309,fl W.R. Meadows, Inc.
"LR-151," Prokrete Industries.
"Kure-N-Seal," Sonneborn-Rexnord.
"Stontop CS2," Stonhard, Inc.

I. Epoxy Adhesive: ASTM C 881, two-component material suitable for use on dry or damp surfaces. Provide material "Type," "Grade," and "Class" to suit project requirements.

J. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to the following:

"Burke Epoxy M.V.," The Burke Co.
"Euco Epoxy System #452 or #620," Euclid Chemical Co.
"Sikadur 32 Hi-Mod," Sika Corp.

2.05 CONCRETE MIXING

A. Ready-Mix Concrete: Comply with requirements of ASTM C 94, and as specified.

When air temperature between 85 deg F (30 deg C) and 90 dcg F (32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes, and when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.01 GENERAL

A. Coordinate the installation of joint materials and vapor retarders with placement of forms and reinforcing steel.

3.02 FORMS

A. General: Design, erect, support, brace, and maintain form-work to support vertical and lateral, static and dynamic loads that might be applied until concrete structure can support such loads. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position. Maintain formwork construction tolerances complying with ACI 347.

Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustictions, regrets, cliamfers, blocking, screeds, bulkheads, anchorages and insets, and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement paste.

Fabricate Forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only.

Provide temporary openings where interior area of Form-work is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete. Securely brace temporary openings and set tightly to Form- to prevent loss of concrete mortar. Locate temporary openings in Form- at inconspicuous locations.

Chamfer all exposed corners and edges using wood, metal, PVC, or rubber chamfer strips fabricated to produce
uniform smooth lines and tight edge joints.

Provisions for Other Trades: Provide openings in concrete framework to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.

Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before concrete is placed. Retighten forms and bracing before concrete placement to prevent mortar leaks and maintain proper alignment.

3.03 VAPOR RETARDER/BARRIER INSTALLATION

A. General: Following leveling and tamping of granular base for slabs on grade, place vapor retarder/barrier sheeting with longest dimension parallel with direction of pour.

Lap joints 6 inches.

3.04 PLACING REINFORCEMENT

A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports and as herein specified.

Avoiding cutting or puncturing vapor retarder during reinforcement placement and concreting operations.

Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with
concrete.

Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as approved by Engineer.

Place reinforcement to obtain at least minimum coverage’s for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

Install welded wire fabric in as long lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

3.05 JOINTS

A. Construction Joints: Locate install construction joints as indicated or, if not indicated, I locate so as not to impair strength and appearance of the structure, as acceptable to Engineer.

Provide keyways at least I- 1/2 inches deep in construction joints in walls and slabs and between walls and footings.
Accepted bulkheads designed for this purpose may be used for slabs.

Place construction joints perpendicular to main reinforcement. Continue reinforcement across construction joints
except as otherwise indicated. Do not continue reinforcement through sides of strip placements.

Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.

B. Waterstops: Provide waterstops in construction joints as indicated. Install waterstops to Form-n continuous diaphragm in each joint. Make provisions to support and protect exposed waterstops during progress of work. Field-fabricate joints in waterstops in accordance with manufacturer's printed instructions.

C. Isolation Joints in Slabs-on-Ground: Construct isolation joints in slabs-on-ground at points of contact between slabs on-ground and vertical surfaces, such as column pedestals, foundation walls, grade beams, and elsewhere as indicated.

Joint filler and sealant materials are specified in Division 7 Sections of these specifications.

D. Contraction (Control) Joints in Slabs-on-Ground: Construct contraction joints in slabs-on-ground to form panels of patterns as shown. Use saw cuts 1/8 inch wide by 1/4 slab depth or inserts 1/4 inch wide by 1/4 of slab depth, unless otherwise indicated.

Form contraction joints by inserting premolded plastic, hardboard, or fiberboard strip into fresh concrete until top surface of strip is flush with slab surface. Tool slab edges round on each side of insert. After concrete has cured, remove inserts and clean groove of loose debris.

Contraction joints in unexposed floor slabs may be formed by saw cuts as soon as possible after slab finishing as
may be safely done without dislodging aggregate.

If joint pattern not shown, provide joints not exceeding 15 feet in either direction and located to conform to bay
spacing wherever possible (at column centerlines, half bays, third bays).

Joint sealant material is specified in Division 7 Sections of these Specifications.

3.06 INSTALLATION OF EMBEDDED ITEMS

D. General: Set and build into work anchorage devices and other embedded items required or other work that is attached to or supported by cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached thereto.

E. Forms for Slabs: Set edge forms, bulkheads, and intermediate screed strips for slabs to obtain required elevations and contours in finished surfaces. Provide and secure units to support screed strips using strike-off templates or compacting-type screeds.

3.07 PREPARATION OF FORM SURFACES

A. General: Coat contact surfaces of forms with an approved, nonresidual, low-VOC, form-coating compound before reinforcement is placed.

Do not allow excess form-n-coating material to accumulate in forms or to come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply in compliance with manufacturer's instructions.

3.08 CONCRETE PLACEMENT

A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work.

B. General: Comply with ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete," and as herein specified.

Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete that has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete to avoid segregation at its final location.

C. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers of deeper than 24

inches and in a manner to avoid inclined construction joints. Where placement consists

of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding,
or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI 309.

Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

D. Placing, Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed.

Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into comers,

Bring slab surfaces to correct level with straightedge and strike off. Use bull floats or darbies to smooth
surface, free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations.

Maintain reinforcing in proper position during concrete placement.

E. Cold-Weather Placing: Comply with provisions of ACI 306 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures. When air temperature has fallen to or is expected to fall below 40 deg F (4 deg C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F (10 deg C) and not more than 80 deg F (27 deg C) at point of placement.

Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade containing frozen materials.

Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.

F. Hot-Weather Placing: When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.

Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg F (32 deg C). Mixing water may be chilled, or chopped ice may be used to control temperature provided water equivalent of ice is calculated to total amount of mixing water.

Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.

Use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions, when acceptable to Engineer.

3.09 FINISH OR FORMED SURFACES

A. Rough From Finish: For formed concrete surfaces not exposed to view in the finish work or concealed by other construction. This is the concrete surface having texture imparted by form-facing material used, with tie holes and defective areas repaired and patched and fins and other projections exceeding 1/4 inch in height rubbed down or chipped off.

B. Smooth Form Finish: For formed concrete surfaces exposed to view or toe be covered with a coating material applied directly to concrete, or a covering material applied directly to concrete, such as waterproofing, dampproofing, veneer plaster, painting, or other similar system. This is an as-cast concrete surface obtained with selected form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch defective areas with fins and other projections completely removed and smoothed.

3.10 MONOLITHIC SLAB FINISHES

A. Scratch Finish: Apply scratch finish to monolithic slab surfaces to receive concrete floor topping or mortar setting beds for tile, portland cement terrazzo, and other bonded applied cementitious finish flooring material, and as otherwise indicated.

After placing slabs, plane surface to tolerances for floor flatness (Ff)) of 15 and floor levelness (F I) to 13. Slope surfaces uniformly to drains where required. After leveling, roughen surface before final set with stiff brushes, brooms, or rakes.

B. Float Finish: Apply float finish to monolithic slab surfaces to receive trowel finish and other inishes as hereinafter specified; slab surfaces to be covered with membrane or elastic waterproofing, membrane or elastic roofing, or sanbed terrazzo; and as other wise indicated.

After screeding, consolidating, and leveling concrete slabs, do not work surface until ready for floating. Begin floating, using float blades or float shoes only, when surface water has disappeared, when concrete has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with power-driven floats or by hand-floating if area is small or

inaccessible to power units. Check and level surface plane to tolerances of (Ff) 18 - F] 15. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

C. Trowel Finish: Apply trowel finish to monolithic slab surfaces to be exposed to view and slab surface to be covered with resilient flooring, carpet, ceramic or quarry tile, paint, or other thin film finish coating system.

After floating, begin first trowel finish operation using a power-driven trowel. Begin final troweling when surface produces a ringing sound as trowel is moved over surface. Consolidate concrete surface by final hand-troweling operation, free of trowel marks, uniform in texture and appearance, and with surface leveled to tolerances of Ff 20 - Ff 17. Grind smooth surface defects that would telegraph through applied floor covering system.

D. Trowel and Fine Broom Finish: Where ceramic or quarry tile is to be installed with this-set mortar, apply trowel finish as specified, then immediately follow with slightly scarifying surface by fine brooming.

E. Nonslip Broom Finish: Apply nonslip broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.

Immediately after float finishing, slightly roughen concrete surface by brooming with fiver-bristle broom perpendicular to main traffic route. Coordinate required final finish with Engineer before application.

3.11 CONCRETE CURING AND PROTECTION

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. In hot, dry, and windy weather, protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply in accordance with manufacturer's instructions after screeding and bull floating, but before power floating and troweling.

Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days.

B. Curing Methods: Perform curing of concrete by curing and sealing compound, by moist curing, by moisture-retaining cover curing, and by combinations thereof, as herein specified.

Provide moisture curing by one of the following methods.

Keep concrete surface continuously wet by covering with water.

Use continuous water-fog spray.

Cover concrete surface with specified absorptive cover, thoroughly saturate cover with water, and keep continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4-inch lap over adjacent absorptive covers.

Provide moisture-cover curing as follows:

Cover concrete surfaces with moisture-retarding cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3 inches and sealed by water proof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and water proof tape.

Provide curing and sealing compound to exposed interior slabs and to exterior slabs, walks, and curbs as follows:

Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen as disappeared). Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's directions. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.

Use membrane curing compounds that will not affect surfaces to be covered with finish materials applied to concrete.

3.12 SHORES AND SUPPORTS

A. General: Comply with ACI 347 for shoring and reshoring in multistory construction, and as herein specified.

Extend shoring from ground to roof for structures 4 stories or less, unless otherwise permitted.

Remove shores and reshore in a planned sequence to avoid damage to partially cured concrete. Locate and provide
adequate reshoring to support work without excessive stress or deflection.

Keep reshores in place a minimum of 15 days after placing upper tier, and longer if required, until concrete has attained its required 28-day strength and heavy loads due to construction operations have been removed.

3.13 REMOVAL OF FORMS

A. Formwork supporting weight of concrete, such as beam soffits, joists, slabs, and other structural elements, may not be removed in less than 14 days and until concrete has attained at least 75 percent of design minimum compressive strength at 28 days. Determine potential compressive strength of in-place concrete by testing field-cured specimens representative of concrete location or members.

Form-facing material may be removed 4 days after placement only if shores and other vertical supports have been arranged to permit removal of form-facing material without loosening or disturbing shores and supports.

3.14 REUSE OF FORMS

A. Clean and repair surfaces of forms to be reused in work. Split, frayed, delaminated, or otherwise damaged formfacing material will not be acceptable for exposed surfaces. Apply new form-coating compound as specified for new formwork. General: Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 de F (10 de C) for 48 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form-removal operations, and provided curing and protection operations are maintained.

When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces except as acceptable to Engineer.

3.15 MISCELLANEOUS CONCRETE ITEMS

A. Filling In: Fill in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and steel-troweling surfaces to a hard, dense finish with comers, intersections, and terminations slightly rounded.

C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations, as shown on drawings. Set anchor bolts for machines and equipment to template at correct elevations, complying with certified diagrams or templates of manufacturer furnishing machines and equipment.

D Reinforced Masonry: Provide concrete grout for reinforced masonry lintels and bond beams where indicated on drawings and as schedules. Maintain accurate location of reinforcing steel during concrete placement.

END OF SECTION

SECTION 003100

PROPOSAL FORM FOR COST OF CONSTRUCTION

BID FROM: _____

ATTN: Mr. Eduardo "Eddie" Cantu
Hidalgo County Precinct 2 Commissioner

RE: Palmer Pavilion Renovation + Les Gilmore Kitchen Upgrades

The Undersigned proposes to furnish all labor, services, materials, tools, and necessary equipment for the demolition, construction, and renovation of the ***Palmer Pavilion and Les Gilmore Kitchen*** located in McAllen, Texas and to perform the work required for said project at the location set out by the Drawings, Project Manual, and Specifications, in strict accordance with the Contract Documents for the completed work.

In submitting this Proposal, it is understood that this Proposal may not be altered or withdrawn for sixty (60) calendar day and that the Owner has reserved the right to reject any and all Proposals.

The Undersigned certifies that this Proposal is made in good faith, without collusion or connection with any other person, persons, partnership, company, firm, association, or corporation offering on this work, for the following sum or prices to wit:

BASE BID: _____

_____ ($ _____) DOLLARS

ALTERNATE NO. 1 (Ornamental Metal Fence): Demolish existing 6' tall chain link fence along Hackberry Ave. and Mustang Drive. Replace with 4' tall aluminum picket fence with two (2) entry gates. Fence shall match the fence at adjacent Charles E. Curtis Park.

ADD: _____ ($ _____) DOLLARS

ALTERNATE NO. 2 (Synthetic Turf at Baseball Field): Provide artificial turf and underlayment at new baseball field in lieu of grass and dirt.

ADD: _____ ($ _____) DOLLARS

The Undersigned further agrees that in case of authorized variations of quantities from those shown or specified, the attached UNIT PRICE SCHEDULE (Specification Section 012200) will be used in adjusting the Contract Price.

The Undersigned hereby declares that he/she has visited the site and has carefully examined the Drawings, Specifications, Contract Documents, and Proposal Documents related to the Work covered by this proposal.

Upon receipt of "*NOTICE TO PROCEED*", the Undersigned will immediately execute the formal contract (Agreement).

The Undersigned agrees to commence work within ten (10) days of Notice to Proceed and to substantially complete the work on or before _____.

The Contract required will be that Standard Form of the American Institute of Architects or an owner modified form and shall provide for payment on accounts of ***ninety-five (95%)*** percent of the value monthly.

The Proposal, the Agreement, the Drawings, the General Conditions, Supplementary General Conditions, the Specifications, and any Addenda shall all become a part of the Contract.

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING ADDENDUM: _____

_____

BONDING COMPANY/COMPANIES: _____

_____
(Name and Address)

If awarded this contract, the Undersigned intends to use the following subcontractors:

ELECTRICAL: _____

PLUMBING: _____

AIR CONDITIONING: _____

STRUCTURAL STEEL FABRICATOR: _____

AISC Certificate Number: _____
Or
IAS-ICC Certificate Number: _____
Or
IBC - Certificate Number: _____

Respectfully Submitted:

BY: _____

FIRM: _____ IF CORPORATION AFFIX SEAL HERE

TITLE: _____

DATE: _____

SECTION 006100

LIQUIDATED DAMAGES

If the Contractor neglects, fails, or refuses to complete the Work within the time specified in the Contract, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration of the awarding of this Contract, to pay the Owner the amount of ***TWO HUNDRED FIFTY DOLLARS AND ZERO CENTS ($250.00)*** - not as a penalty, but as liquidated damages for such breach of Contract as hereinafter set forth, for each and every ***calendar day*** that the Contractor shall be in default after the time stipulated in the Contract for completing the Work.

(The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would, in such event, sustain).

Acknowledged and Agreed:

BY: _____

FIRM: _____ IF CORPORATION AFFIX SEAL HERE

TITLE: _____

DATE: _____

SECTION 011000

SUMMARY

PART 1 - GENERAL

1.1 PROJECT

A. Project Name: **PALMER PAVILION RENOVATION + LES GILMORE KITCHEN UPGRADES**

B. Owner's Name: COUNTY OF HIDALGO - PRECINCT 2
300 West Hall Acres, Suite G
Pharr, TX 78577

C. Owner's Representative: Commissioner Eduardo "Eddie" Cantu

D. Architect's Name: Sam Garcia Architect, LLC
200 S. 10th Street
Suite 1602
McAllen, TX 78501

E. Architect's Representative: Sam Garcia, AIA
(956) 631-8327 (o)
(956) 212-4930 (m)

F. The Project consists of the new demolition of an existing pre-engineered metal building, demolition of selected site area, demolition of minor storage structures, construction of a new building to serve as public gymnasium facility, senior day center, and the renovation of an existing barbeque cooking facility. The project is located at the northeast corner of Hackberry Ave and Mustang Drive in McAllen, Texas near McAllen Memorial High School and within Charles E. Curtis Park in McAllen, Texas.

1.2 CONTRACT DESCRIPTION

A. Contract Type: As determined by COUNTY OF HIDALGO

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 012100

ALLOWANCES

PART 1 - GENERAL

1.01 SECTION INCLUDES
- A. Cash allowances.
- B. Contingency allowance.

1.02 RELATED REQUIREMENTS
- A. Section 012900 - Price and Payment Procedures: Additional payment and modification procedures.

1.03 CASH ALLOWANCES
- A. Costs Included in Cash Allowances: Cost of product to or subcontractor, less applicable trade discounts.
- B. Costs Not Included in Cash Allowances: Product delivery to site and handling at the site, including unloading, uncrating, and storage; protection of products from elements and from damage; and labor for installation and finishing.
- C. Sam Garcia Architect, LLC Responsibilities:
  1. Consult with for consideration and selection of products, suppliers, and installers.
  2. Select products in consultation with Owner and transmit decision to.
  3. Prepare Change Order.
- D. Responsibilities:
  1. Assist SAM GARCIA ARCHITECT, LLC in selection of products, suppliers, and installers.
  2. Obtain proposals from suppliers and installers and offer recommendations.
  3. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
  4. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.
- E. Differences in costs will be adjusted by Change Order.

1.04 CONTINGENCY ALLOWANCE
- A. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, will be incl. in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- B. Funds will be drawn from the Contingency Allowance only by Change Order.
- C. At closeout, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

1.05 ALLOWANCES SCHEDULE
- A. Landscape and Irrigation Allowance:
  1. Include the stipulated sum of **FIFTEEN THOUSAND DOLLARS AND ZERO CENTS ($15,000.00)** for design, purchase, and delivery of Landscaping and Irrigation within the area indicated on the Architectural Site Plan.
- B. Furniture, Fixtures, and Equipment (FFE) Allowance:
  1. Include the stipulated sum of **THIRTY THOUSAND DOLLARS AND ZERO CENTS ($30,000.00)** for the purchase and installation of tables, chairs, desks, stools, shelves and other miscellaneous FFE items selected by the Owner to furnish the project.
- C. Construction Contingency Allowance:
  1. Include the stipulated sum of **TWENTY FIVE THOUSAND DOLLARS AND ZERO CENTS ($25,000.00)**
     - a. Funds will be drawn from the Contingency Allowance only by Change Order. Contingency Allowance should only be used for unforeseen circumstances, unless otherwise approved by the Owner.
     - b. Contingency could be used for, but is not limited to, architectural items, engineering items, soils testing, concrete testing, etc.
     - c. At close-out of the Construction Contract, funds remaining in the Construction Contingency Allowance will be credited to the Owner by Change Order.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 012200

UNIT PRICES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. List of unit prices, for use in preparing Bids.

1.02 COSTS INCLUDED

A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

1.03 UNIT QUANTITIES SPECIFIED

A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.

1.04 MEASUREMENT OF QUANTITIES

A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.
B. Take all measurements and compute quantities. Measurements and quantities will be verified by SAM GARCIA ARCHITECT, LLC.
C. Assist by providing necessary equipment, workers, and survey personnel as required.
D. Measurement Devices:
E. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
F. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
G. Measurement by Area: Measured by square dimension using mean length and width or radius.
H. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.
I. Stipulated Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.
J. Perform surveys required to determine quantities, including control surveys to establish measurement reference lines. Notify SAM GARCIA ARCHITECT, LLC prior to starting work.

1.05 PAYMENT

A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the SAM GARCIA ARCHITECT, LLC, multiplied by the unit price.
B. Payment will not be made for any of the following:
    1. Products wasted or disposed of in a manner that is not acceptable.
    2. Products determined as unacceptable before or after placement.
    3. Products not completely unloaded from the transporting vehicle.
    4. Products placed beyond the lines and levels of the required Work.
    5. Products remaining on hand after completion of the Work.

6. Loading, hauling, and disposing of rejected Products.

1.06 DEFECT ASSESSMENT

A. Replace Work, or portions of the Work, not conforming to specified requirements.
B. If, in the opinion of SAM GARCIA ARCHITECT, LLC, it is not practical to remove and replace the Work, SAM GARCIA ARCHITECT, LLC will direct one of the following remedies:
   1. The defective Work may remain, but the unit price will be adjusted to a new unit price at the discretion of SAM GARCIA ARCHITECT, LLC.
   2. The defective Work will be partially repaired to the instructions of the Architect and the unit price will be adjusted to a new unit price at the discretion of SAM GARCIA ARCHITECT, LLC.
C. The authority of the OWNER to assess the defect and identify payment adjustment is final.

1.07 SCHEDULE OF UNIT PRICES

A. Item: Structural Steel, per Pound.

B. Item: Steel Reinforcinging, per Pound.

C. Item: 3,000 psi concrete, per Cubic Yard.

D. Item: Reinforced CMU, per Square Foot.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 012300

ALTERNATIVES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Description of alternates.
B. Procedures for pricing alternates.
C. Documentation of changes to Contract Sum and Contract Time.

1.02 RELATED REQUIREMENTS

A. Document 005000 - Agreement: Incorporating monetary value of accepted alternatives.

1.03 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at OWNER'S option. Accepted alternates will be identified in the Owner-Contractor Agreement.
B. Coordinate related work and modify surrounding work to integrate the Work of each alternate.

1.04 SCHEDULE OF ALTERNATES

A. **Alternative No. 1 - NEW ALUMINUM PERIMETER FENCING**
   1. Demolish existing 6' tall chain link fence along Hackberry Ave. and Mustang Drive.
   2. Replace with 4' tall aluminum picket fence w/ two entry gates. Fence shall match the fence at adjacent Charles E. Curtis park. Refer to new site plan (1/AS1.1) for linear feet.
   3. Contractor shall field verify conditions prior to submitting bid.

B. **Alternative No. 2 - SYNTHETIC TURF AT BASEBALL FIELD**
   1. Provide artificial turf and underlayment at new baseball field in lieu of grass and dirt.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 012900

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Procedures for preparation and submittal of applications for progress payments.
B. Documentation of changes in Contract Sum and Contract Time.
C. Change procedures.

1.02 RELATED REQUIREMENTS

A. Document 005000 - Agreement: Contract Sum, retainages, payment period, monetary values of unit prices.
B. Document 007000 - General Conditions and Document 00800 - Supplementary Conditions: Additional requirements for progress payments, final payment, changes in the Work.
C. Document 008000 - Supplementary Conditions: Percentage allowances for's overhead and profit.
D. Section 012100 - Allowances: Payment procedures relating to allowances.

1.03 SCHEDULE OF VALUES

A. The entire construction contract amount shall be broken down in the General Contractor's Schedule of Values.
B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to SAM GARCIA ARCHITECT, LLC for approval.
C. Forms filled out by hand will not be accepted.
D. Submit a printed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet. Contractor's standard form or electronic media printout will be considered.
E. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
F. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify site mobilization and bonds and insurance.
G. Include in each line item, the amount of Allowances specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
H. Include in the Schedule of Values, all of the General Contractor's overhead and profit.
I. Revise schedule to list approved Change Orders, with each Application For Payment, during the course of the project.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

A. Payment Period: Submit at intervals stipulated in the Agreement.
B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to SAM GARCIA ARCHITECT, LLC for approval.
C. Forms filled out by hand will not be accepted.
D. Present required information on electronic media printout.
E. Form: AIA G702 Application and Certificate for Payment and AIA G703 - Continuation Sheet including continuation sheets when required.
F. For each item, provide a column for listing each of the following:

1. Item Number.
2. Description of work.
3. Scheduled Values.
4. Previous Applications.
5. Work in Place and Stored Materials under this Application.
6. Authorized Change Orders.
7. Total Completed and Stored to Date of Application.
8. Percentage of Completion.
9. Balance to Finish.
10. Retainage.

G. Execute certification by signature of authorized officer.
H. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored Products.
I. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.
J. Submit four copies of each Application for Payment.
K. Include the following with the application:
   1. Transmittal letter as specified for Submittals in Section 013300.
   2. Construction progress schedule, revised and current as specified in Section 013200.
   3. Affidavits attesting to off-site stored products.

1.05 MODIFICATION PROCEDURES

A. For minor changes not involving an adjustment to the Contract Price or Contract Time, SAM GARCIA ARCHITECT, LLC will issue instructions directly to the Contractor.
B. SAM GARCIA ARCHITECT, LLC will advise of changes in the Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract by issuing supplemental instructions on AIA Form G710.
C. For other required changes, SAM GARCIA ARCHITECT, LLC will issue a document signed by OWNER instructing to proceed with the change, for subsequent inclusion in a Change Order.
   1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
   2. Promptly execute the change.
D. For changes for which advance pricing is desired, SAM GARCIA ARCHITECT, LLC will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change. The Contractor shall prepare and submit a fixed price quotation within 30 days.
E. The Contractor may propose a change by submitting a request for change to SAM GARCIA ARCHITECT, LLC, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 016000.
F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
   1. For change requested by SAM GARCIA ARCHITECT, LLC for work falling under a fixed price contract, the amount will be based on the Contractor's price quotation.
G. Substantiation of Costs: Provide full information required for evaluation.
   1. On request, provide following data:
      a. Quantities of products, labor, and equipment.
      b. Any applicable taxes, insurance, and bonds.
      c. Overhead and profit.
      d. Credit for deletions from Contract, similarly documented.

2. Support each Contractor's claim for additional costs with additional information:
   a. Origin and date of claim.
   b. Dates and times work was performed, and by whom.
   c. Time records and wage rates paid.
   d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.

H. Execution of Change Orders: SAM GARCIA ARCHITECT, LLC will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

I. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.

J. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.

K. Promptly enter changes in Project Record Documents.

1.06 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 013100

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Preconstruction meeting.
B. Site mobilization meeting.
C. Progress meetings.
D. Construction progress schedule.

1.02 RELATED REQUIREMENTS

A. Document 007000 - General Conditions:
B. Document 008000 - Supplementary Conditions:
C. Section 017300 - Execution Requirements: Additional coordination requirements.
D. Section 017800 - Closeout Submittals: Project record documents.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PRECONSTRUCTION MEETING

A. SAM GARCIA ARCHITECT, LLC will schedule a meeting after Notice of Award.
B. Attendance Required:
    1. OWNER's select representatives.
    2. SAM GARCIA ARCHITECT, LLC
    3. Design consultants.
    4. The General Contractor and sub-contractors.
C. Agenda:
    1. Execution of OWNER- Agreement.
    2. Submission of executed bonds and insurance certificates.
    3. Distribution of Contract Documents.
    4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
    5. Designation of personnel representing the parties to the Contract, OWNER, and SAM GARCIA ARCHITECT, LLC.
    6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, time extension applications, and Contract closeout procedures.
    7. Observations of the Work and deficiency reports by the Owner and Architect.
    8. Scheduling.
    9. SAM GARCIA ARCHITECT, LLC will prepare a meeting report for distribution to all attendees, within three working days of the Preconstruction meeting.

3.02 SITE MOBILIZATION MEETING

A. OWNER will schedule a meeting at the Project site prior to occupancy.
B. Attendance Required:
    1. OWNER.

2. SAM GARCIA ARCHITECT, LLC.
3. Special Consultants.
4. Contractor's Superintendent.
5. Major Subcontractors.

C. Agenda:
1. Survey and building layout.
2. Security and housekeeping procedures.
3. Schedules.
4. Application for payment procedures.
5. Procedures for testing.
6. Procedures for maintaining record documents.
7. Requirements for start-up of equipment.
8. Inspection and acceptance of equipment put into service during construction period.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to SAM GARCIA ARCHITECT, LLC, OWNER, participants, and those affected by decisions made.

3.03 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
B. SAM GARCIA ARCHITECT, LLC will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
C. Attendance Required: Job superintendent, major Subcontractors and suppliers, OWNER, SAM GARCIA ARCHITECT, LLC, as appropriate to agenda topics for each meeting.
D. Agenda:
1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems that impede, or will impede, planned progress.
5. Review of submittals schedule and status of submittals.
6. Review of off-site fabrication and delivery schedules.
7. Maintenance of progress schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on progress schedule and coordination.
13. Other business relating to Work.

E. Record minutes and distribute copies within three days after meeting to participants, with copies to SAM GARCIA ARCHITECT, LLC, OWNER, participants, and those affected by decisions made.

3.04 PROGRESS PHOTOGRAPHS

A. Submit new photographs at least once a month, within 3 days after exposure.
B. Maintain one set of all photographs at project site for reference; same copies as submitted, identified as such.
C. Photography Type: Digital; electronic files.
D. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.
1. Delivery Medium: On photo CD.

END OF SECTION

SECTION 013200

CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Preliminary schedule.
B. Construction progress schedule, bar chart type.

1.02 RELATED SECTIONS

A. Section 01100 - Summary:

1.03 REFERENCES

A. AGC (CPSM) - Construction Planning and Scheduling Manual; Associated General Contractors of America; 2004.
B. M-H (CPM) - CPM in Construction Management - Project Management with CPM, O'Brien, McGraw-Hill Book Company; 2006.

1.04 SUBMITTALS

A. Within 10 working days after date of Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work. Provide a list of products which have a long lead-time and will need to be prioritized in the project schedule.
B. If preliminary schedule requires revision after review, submit revised schedule within five days.
C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
    1. Include written certification that major contractors have reviewed and accepted proposed schedule.
D. Within 10 days after joint review, submit complete schedule.
E. Submit updated schedule with each Application for Payment.
F. Submit the number of opaque reproductions that required by all parties, plus two copies that will be retained by SAM GARCIA ARCHITECT, LLC.

1.05 QUALITY ASSURANCE

A. Scheduler: Contractor's personnel or specialist Consultant specializing in CPM scheduling with five years minimum experience in scheduling construction work of a complexity comparable to this Project, and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.

1.06 SCHEDULE FORMAT

A. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
B. Diagram Sheet Size: Maximum 11x17 inches or width required.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PRELIMINARY SCHEDULE

A. Prepare preliminary schedule in the form of a horizontal bar chart.

3.02 CONTENT

A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
B. Identify each item by specification section number.
C. Identify work of separate stages and other logically grouped activities.
D. Provide sub-schedules to define critical portions of the entire schedule.
E. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
F. Provide separate schedule of submittal dates for shop drawings, product data, and samples, owner-furnished products, Products identified under Allowances, and dates reviewed submittals will be required from SAM GARCIA ARCHITECT, LLC. Indicate decision dates for selection of finishes.
G. Indicate delivery dates for owner-furnished products.
H. Coordinate content with schedule of values specified in Section 01200.
I. Provide legend for symbols and abbreviations used.

3.03 BAR CHARTS

A. Include a separate bar for each major portion of Work or operation.
B. Identify the first work day of each week.

3.04 REVIEW AND EVALUATION OF SCHEDULE

A. Participate in joint review and evaluation of schedule with SAM GARCIA ARCHITECT, LLC at each submittal.
B. Evaluate project status to determine work behind schedule and work ahead of schedule.
C. After review, revise as necessary as result of review, and resubmit within 10 days.

3.05 UPDATING SCHEDULE

A. Maintain schedules to record actual start and finish dates of completed activities.
B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
C. Annotate diagrams to graphically depict current status of Work.
D. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
E. Indicate changes required to maintain Date of Substantial Completion.
F. Submit reports required to support recommended changes.
G. Provide narrative report to define problem areas, anticipated delays, and impact on the schedule. Report corrective action taken or proposed and its effect including the effects of changes on schedules of separate contractors.

3.06 DISTRIBUTION OF SCHEDULE

A. Distribute copies of updated schedules to project site file, to Subcontractors, suppliers, SAM GARCIA ARCHITECT, LLC, OWNER, and other concerned parties.
B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

END OF SECTION

SECTION 013300

SUBMITTAL REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Submittals for review
B. Submittals for information
C. Submittals for Project closeout.
D. Number of copies of submittals.
G. Submittal procedures.

1.02 RELATED REQUIREMENTS

A. Document 007000 - General Conditions:
B. Document 008000 - Supplementary Conditions:
C. Section 017300 - Execution Requirements: Additional coordination requirements.
D. Section 017800 - Closeout Submittals: Project record documents.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
    1. Product data.
    2. Shop drawings.
    3. Color charts for preliminary selection.
    4. Samples for verification.
    5. Mock-ups - when required.
B. Submit to SAM GARCIA ARCHITECT, LLC for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
C. Samples will be reviewed only for aesthetic, color, or finish selection.
D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 017800 - CLOSEOUT SUBMITTALS.

3.02 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:
    1. Design data.
    2. Certificates.
    3. Test reports.
    4. Inspection reports.
    5. Manufacturer's instructions.
    6. Manufacturer's field reports.
    7. Other types indicated.
B. Submit for SAM GARCIA ARCHITECT's knowledge as contract administrator or for OWNER. No action will be taken.

3.03 SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   4. Bonds.
   5. Other types as indicated.
B. Submit for OWNER's benefit during and after project completion.

3.04 NUMBER OF COPIES OF SUBMITTALS

A. Documents for Review:
   1. Small Size Sheets, Not Larger Than 8-1/2 x 11 inches: Submit the number of copies required for all reviewing parties, plus two copies that will be retained by SAM GARCIA ARCHITECT, LLC.
   2. Larger Sheets, Not Larger Than 24x36 inches: Submit one reproducible transparency and two opaque reproductions.
B. Documents for Information: Submit two copies.
C. Documents for Project Closeout: Make one reproduction of submittal originally reviewed. Submit one extra of submittals for information.
D. Samples: Submit the number specified in individual specification sections; one of which will be retained by SAM GARCIA ARCHITECT, LLC.
   1. After review, produce duplicates.
   2. Retained samples will not be returned to unless specifically so stated.

3.05 SUBMITTAL PROCEDURES

A. Transmit each submittal with AIA Form G810.
B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
C. Identify Project,, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
D. Apply stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
E. Deliver submittals to SAM GARCIA ARCHITECT, LLC at business address.
F. Schedule submittals to expedite the Project, and coordinate submission of related items.
G. For each submittal for review, allow ten (10) working days excluding delivery time to and from the reviewing parties.
H. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
I. Provide space for and SAM GARCIA ARCHITECT, LLC review stamps.
J. When revised for resubmission, identify all changes made since previous submission.
K. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.

END OF SECTION

SECTION 014000

QUALITY REQUIREMENTS AND TESTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Mock-ups.
B. Control of installation.
C. Tolerances.
D. Testing and inspection services.
E. Manufacturers' field services.

1.02 RELATED REQUIREMENTS

A. Document 007000 - General Conditions: Inspections and approvals required by public authorities.
B. Section 016000 - Product Requirements: Requirements for material and product quality.

1.03 REFERENCE STANDARDS

A. ASTM C 1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008.
B. ASTM C 1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2007a.
C. ASTM C 1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2007.
D. ASTM D 3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2004a.
E. ASTM E 329 - Standard Specification for Agencies Engaged Construction Inspection and/or Testing; 2007a.
F. ASTM E 543 - Standard Specification for Agencies Performing Nondestructive Testing; 2008.

1.04 SUBMITTALS (for independent testing services required to be provided by the Contractor)

A. Testing Agency Qualifications:
   1. Prior to start of Work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
   2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
B. Design Data: Submit for SAM GARCIA ARCHITECT, LLC's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for OWNER's information.
C. Test Reports: After each test/inspection, promptly submit two copies of report to SAM GARCIA ARCHITECT, LLC and to.
   1. Test report submittals are for SAM GARCIA ARCHITECT, LLC's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for OWNER's information.
D. Certificates: When specified in individual specification sections, submit certification by the manufacturer and or installation/application subcontractor to SAM GARCIA ARCHITECT, LLC, in quantities specified for Product Data.

1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
2. Certificates may be recent or previous test results on material or product, but must be acceptable to SAM GARCIA ARCHITECT, LLC.

E. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the OWNER's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

F. Manufacturer's Field Reports: Submit reports for SAM GARCIA ARCHITECT, LLC's benefit as contract administrator or for OWNER.
1. Submit report in duplicate within 30 days of observation to SAM GARCIA ARCHITECT, LLC for information.
2. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

G. Erection Drawings: Submit drawings for SAM GARCIA ARCHITECT, LLC's benefit as contract administrator or for OWNER.
1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
2. Data indicating inappropriate or unacceptable Work may be subject to action by SAM GARCIA ARCHITECT, LLC or OWNER.

1.05 OWNER-PROVIDED TESTING AND INSPECTION AGENCIES

A. OWNER will employ and pay for services of an independent testing agency to perform specified testing which is not required to be provided by the Contractor.

B. Contractor shall employ and pay for services of an independent testing agency to perform specified testing which is not required to be provided by the Owner.

C. Employment of agency in no way relieves of obligation to perform Work in accordance with requirements of Contract Documents.

D. Employed Agency:
1. Testing agency: Comply with requirements of ASTM E 329, ASTM E 543, ASTM C 1021, ASTM C 1077, and ASTM C 1093.
2. Inspection agency: Comply with requirements of ASTM D3740 and ASTM E329.
3. Laboratory: Authorized to operate in State in which Project is located.
4. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
5. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from SAM GARCIA ARCHITECT, LLC before proceeding.

D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Have Work performed by persons qualified to produce required and specified quality.
F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 MOCK-UPS

A. Tests will be performed under provisions identified in this section and identified in the respective product specification sections.
B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
C. Accepted mock-ups shall be a comparison standard for the remaining Work.
D. Where mock-up has been accepted by SAM GARCIA ARCHITECT, LLC and is specified in product specification sections to be removed, remove mock-up and clear area when directed to do so.

3.03 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from SAM GARCIA ARCHITECT, LLC before proceeding.
C. Adjust products to appropriate dimensions; position before securing products in place.

3.04 TESTING AND INSPECTION

A. See individual specification sections for testing and inspection required.
B. Testing Agency Duties:
    1. Provide qualified personnel at site. Cooperate with SAM GARCIA ARCHITECT, LLC and in performance of services.
    2. Perform specified sampling and testing of products in accordance with specified standards.
    3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
    4. Promptly notify SAM GARCIA ARCHITECT, LLC and of observed irregularities or non-conformance of Work or products.
    5. Perform additional tests and inspections required by SAM GARCIA ARCHITECT, LLC.
    6. Submit reports of all tests/inspections specified.
C. Limits on Testing/Inspection Agency Authority:
    1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
    2. Agency may not approve or accept any portion of the Work.
    3. Agency may not assume any duties of the Owner or Contractor.
    4. Agency has no authority to stop the Work, but must notify the Contractor, Architect, and Owner immediately of any deficient work being performed.
D. Responsibilities:
    1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
    2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
    3. Provide incidental labor and facilities:
        a. To provide access to Work to be tested/inspected.
        b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
        c. To facilitate tests/inspections.
        d. To provide storage and curing of test samples.

4. Notify SAM GARCIA ARCHITECT, LLC and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by beyond specified requirements.
6. Arrange with OWNER's agency and pay for additional samples, tests, and inspections required by beyond specified requirements.

E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by SAM GARCIA ARCHITECT, LLC.

F. Re-testing required because of non-conformance to specified requirements shall be paid for by CONTRACTOR.

G. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by SAM GARCIA ARCHITECT, LLC. Payment for re testing will be charged to the by deducting testing charges from the Contract Price.

3.05 MANUFACTURERS' FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and to initiate instructions when necessary.

B. Submit qualifications of observer to SAM GARCIA ARCHITECT, LLC 30 days in advance of required observations.
   1. Observer subject to approval of SAM GARCIA ARCHITECT, LLC.

C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.06 DEFECT ASSESSMENT

A. Replace Work or portions of the Work not conforming to specified requirements.

B. If, in the opinion of SAM GARCIA ARCHITECT, LLC, it is not practical to remove and replace the Work, SAM GARCIA ARCHITECT, LLC will direct an appropriate remedy or adjust payment.

END OF SECTION

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Temporary utilities.
B. Temporary telecommunications services.
C. Temporary telephone service.
D. Temporary sanitary facilities.
E. Temporary Controls: Barriers, enclosures, and fencing.
F. Security requirements.
G. Vehicular access and parking.
H. Waste removal facilities and services.
I. Project identification sign.

1.02 RELATED REQUIREMENTS

A. Section 015250 - Field Offices.

1.03 TEMPORARY UTILITIES

A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.
B. Existing facilities may not be used.
C. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.04 TELECOMMUNICATIONS SERVICES

A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
B. Telecommunications services shall include:
   1. Telephone Land Lines: One line, minimum; one handset per line.
   2. Internet Connections: Minimum of one; DSL modem or faster.
   3. Facsimile Service: Minimum of one dedicated fax machine/printer, with dedicated phone line.
C. Provide, maintain and pay for facsimile service and a dedicated telephone line to field office at time of project mobilization.

1.05 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
B. Maintain daily in clean and sanitary condition.
C. At end of construction, return facilities to same or better condition as originally found.

1.06 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.07 FENCING

A. Construction: Commercial grade chain link fence.
B. Provide 6-foot high fence around construction site at limits of construction as shown on drawings; equip with vehicular and pedestrian gates with locks.

1.08 EXTERIOR ENCLOSURES

A. Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.09 SECURITY

A. Provide security and facilities to protect Work, existing facilities, and OWNERS's operations from unauthorized entry, vandalism, or theft.

1.10 VEHICULAR ACCESS AND PARKING

A. Coordinate access and haul routes with governing authorities.
B. Provide and maintain access to fire hydrants, free of obstructions.
C. Provide means of removing mud from vehicle wheels before entering streets.
D. Designated existing on-site roads may be used for construction traffic.
E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.
F. Do not allow vehicle parking on existing pavement.

1.11 WASTE REMOVAL

A. See Section 017320 - Waste Management, for additional requirements.
B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
C. Provide containers with lids. Remove trash from site periodically.
D. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.12 PROJECT IDENTIFICATION (PROJECT SIGN)

A. Provide ONE (1) 4 foot by 8 foot project identification signs of design and construction to be established by SAM GARCIA ARCHITECT, LLC
B. Erect on site at location established by SAM GARCIA ARCHITECT, LLC or as indicated on drawings.
C. No other signs are allowed without OWNER'S permission except those required by law.

1.13 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
C. Clean and repair damage caused by installation or use of temporary work.
D. Restore existing facilities used during construction to original condition.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 015250

FIELD OFFICES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Temporary field offices for use of the Contractor.
B. Maintenance and removal.

1.02 RELATED REQUIREMENTS

A. Section 015000 - Temporary Facilities and Controls:
   1. Temporary telecommunications services for administrative purposes.
   2. Temporary sanitary facilities required by law.
   3. Temporary utilities.
   4. Security and fencing.
   5. Vehicular access and parking.
   6. Waste removal.
   7. Project identification (Project Sign)

PART 2 - PRODUCTS

2.01 MATERIALS, EQUIPMENT, FURNISHINGS

A. Materials, Equipment, Furnishings: Serviceable, new or used, adequate for required purpose.

2.02 CONSTRUCTION

A. Portable or mobile buildings, or buildings constructed with floors raised above ground, securely fixed to foundations, with steps and landings at entrance doors.
B. Construction: Structurally sound, secure, weather tight enclosures for office. Maintain during progress of Work; remove when no longer needed.
C. Temperature Transmission Resistance of Floors, Walls, and Ceilings: Compatible with occupancy requirements.
D. Exterior Materials: Weather resistant, finished in one color.
E. Interior Materials in Offices: Sheet type materials for walls and ceilings, prefinished or painted; resilient floors and bases.
F. Lighting for Offices: 50 fc at desk top height, exterior lighting at entrance doors.
G. Fire Extinguishers: Appropriate type fire extinguisher at each office.

2.03 ENVIRONMENTAL CONTROL

A. Heating, Cooling, and Ventilating: Automatic equipment to maintain comfort conditions.

2.04 OFFICE AND FACILITIES

A. Size: For Contractor's needs and to provide space for project meetings to accommodate 12 persons.
B. Telephone: As specified in Section 015000.

C. Furnishings in Meeting Area: Conference table and chairs to seat at least 12 persons; racks and files for Contract Documents, submittals, and project record documents.

D. Other Furnishings: Contractor's option.
E. Equipment: Six adjustable protective helmets for visitors, one 10-inch outdoor weather thermometer.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install office spaces ready for occupancy 15 days after date fixed in Notice to Proceed.
B. Parking: Two hard surfaced parking spaces connected to office by hard surfaced walk.
C. Employee Residential Occupancy: Not allowed.

3.02 MAINTENANCE AND CLEANING

A. Weekly janitorial services for offices; periodic cleaning and maintenance for offices.
B. Maintain approach walks free of mud, water, and snow

3.03 REMOVAL

A. At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.

END OF SECTION

SECTION 015750

TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Prevention of erosion due to construction activities.
B. Prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities.
C. Restoration of areas eroded due to insufficient preventive measures.
D. Compensation of OWNER for fines levied by authorities having jurisdiction due to non-compliance by CONTRACTOR.

1.02 PERFORMANCE REQUIREMENTS

A. Comply with all requirements of U.S. Environmental Protection Agency for erosion and sedimentation control, as specified for the National Pollutant Discharge Elimination System (NPDES), Phases I and II, under requirements for the 2003 Construction General Permit (CGP), whether the project is required by law to comply or not.
B. Also comply with all more stringent requirements of State of Texas Erosion and Sedimentation Control Manual.
C. Develop and follow an Erosion and Sedimentation Prevention Plan and submit periodic inspection reports.
D. Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.
    1. Obtain and pay for permits and provide security required by authority having jurisdiction.
    2. OWNER will withhold payment equivalent to all fines resulting from non-compliance with applicable regulations, if not paid by the Contractor.
E. Timing: Put preventive measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.
F. Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.
    1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less.
    2. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall events that might occur in 25 years.
G. Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.
    1. Control movement of sediment and soil from temporary stockpiles of soil.
    2. Prevent development of ruts due to equipment and vehicular traffic.
    3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to OWNER.
H. Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.
    1. Prevent windblown soil from leaving the project site.
    2. Prevent tracking of mud onto public roads outside site.
    3. Prevent mud and sediment from flowing onto sidewalks and pavements

4. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to OWNER.

I. Sedimentation of Waterways On Site: Prevent sedimentation of waterways on the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
   1. If sedimentation occurs, install or correct preventive measures immediately at no cost to OWNER; remove deposited sediments; comply with requirements of authorities having jurisdiction.
   2. If sediment basins are used as temporary preventive measures, pump dry and remove deposited sediment after each storm.

J. Sedimentation of Waterways Off Site: Prevent sedimentation of waterways off the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
   1. If sedimentation occurs, install or correct preventive measures immediately at no cost to OWNER; remove deposited sediments; comply with requirements of authorities having jurisdiction.

K. Open Water: Prevent standing water that could become stagnant.

L. Maintenance: Maintain temporary preventive measures until permanent measures have been established.

1.03 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES.

B. Erosion and Sedimentation Control Plan:
   1. Submit within Ten working days after Award of Contract. Do not perform any work on site which would result in existing soil disturbance, or exposure, until the proper permitting has been acquired.
   2. Include:
      a. Site plan identifying soils and vegetation, existing erosion problems, and areas vulnerable to erosion due to topography, soils, vegetation, or drainage.
      b. Site plan showing grading; new improvements; temporary roads, traffic accesses, and other temporary construction; and proposed preventive measures.
      c. Where extensive areas of soil will be disturbed, include storm water flow and volume calculations, soil loss predictions, and proposed preventive measures.
      d. Schedule of temporary preventive measures, in relation to ground disturbing activities.
      e. Other information required by law.
      f. Format required by law is acceptable, provided any additional information specified is also included.
   3. Obtain the approval of the Plan by authorities having jurisdiction.
   4. Obtain the approval of the Plan by OWNER.

C. Certificate: Mill certificate for silt fence fabric attesting that fabric and factory seams comply with specified requirements, signed by legally authorized official of manufacturer; indicate actual minimum average roll values; identify fabric by roll identification numbers.

D. Inspection Reports: Submit report of each inspection; identify each preventive measure, indicate condition, and specify maintenance or repair required and accomplished.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Mulch: Use one of the following:
   1. Straw or hay.
   2. Erosion control matting or netting.
   3. Polyethylene film, where specifically indicated only.

B. Grass Seed For Temporary Cover: Select a species appropriate to climate, planting season, and intended purpose. If same area will later be planted with permanent vegetation, do not use species known to be excessively competitive or prone to volunteer in subsequent seasons.
C. Silt Fence Fabric: Polypropylene geotextile resistant to common soil chemicals, mildew, and insects; non-biodegradable; in longest lengths possible; fabric including seams with the following minimum average roll lengths:
   1. Average Opening Size: 30 U.S. Std. Sieve, maximum, when tested in accordance with ASTM D 4751.
   2. Permittivity: 0.05 sec^-1, minimum, when tested in accordance with ASTM D 4491.
   3. Ultraviolet Resistance: Retaining at least 70 percent of tensile strength, when tested in accordance with ASTM D 4355 after 500 hours exposure.
   4. Tensile Strength: 100 lb-f, minimum, in cross-machine direction; 124 lb-f, minimum, in machine direction; when tested in accordance with ASTM D 4632.
   5. Elongation: 15 to 30 percent, when tested in accordance with ASTM D 4632.
   6. Tear Strength: 55 lb-f, minimum, when tested in accordance with ASTM D 4533.
   7. Color: Manufacturer's standard, with embedment and fastener lines preprinted.
D. Silt Fence Posts: One of the following, minimum 5 feet long:
   1. Steel U- or T-section, with minimum mass of 1.33 lb per linear foot.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.

3.02 PREPARATION

A. Schedule work so that soil surfaces are left exposed for the minimum amount of time.

3.03 SCOPE OF PREVENTIVE MEASURES

A. In all cases, if permanent erosion resistant measures have been installed temporary preventive measures are not required.
B. Construction Entrances: Traffic-bearing aggregate surface.
   1. Width: As required; 20 feet, minimum.
   2. Length: 50 feet, minimum.
   3. Provide at each construction entrance from public right-of-way.
   4. Where necessary to prevent tracking of mud onto right-of-way, provide wheel-washing area out of direct traffic lane, with drain into sediment trap or basin.
C. Linear Sediment Barriers: Made of silt fences.
   1. Provide linear sediment barriers:
      a. Along downhill perimeter edge of disturbed areas, including soil stockpiles.
      b. Along the top of the slope or top bank of drainage channels and swales that traverse disturbed areas.
      c. Along the toe of cut slopes and fill slopes.
      d. Perpendicular to flow across the bottom of existing and new drainage channels and swales that traverse disturbed areas or carry runoff from disturbed areas; space at maxi. of 200 feet apart.
      e. Across the entrances to culverts that receive runoff from disturbed areas.
   2. Space sediment barriers with the following maximum slope length upslope from barrier:
      a. Slope of Less Than 2 Percent: 100 feet..
      b. Slope Between 2 and 5 Percent: 75 feet.
      c. Slope Between 5 and 10 Percent: 50 feet.

d. Slope Between 10 and 20 Percent: 25 feet.
e. Slope Over 20 Percent: 15 feet.

D. Storm Drain Curb Inlet Sediment Trap: Protect each curb inlet using one of the following measures:
1. Filter fabric wrapped around hollow concrete blocks blocking entire inlet face area; use one piece of fabric wrapped at least 1-1/2 times around concrete blocks and secured to prevent dislodging; orient cores of blocks so runoff passes into inlet.
2. Straw bale row blocking entire inlet face area; anchor into pavement.

E. Storm Drain Drop Inlet Sediment Traps: As detailed on drawings.

F. Temporary Splash Pads: Stone aggregate over filter fabric; size to suit application; provide at downspout outlets and storm water outlets.

G. Soil Stockpiles: Protect using one of the following measures:
1. Cover with polyethylene film, secured by placing soil on outer edges.
2. Cover with mulch at least 4 inches thickness of pine needles, sawdust, bark, wood chips, or shredded leaves, or 6 inches of straw or hay.

H. Mulching: Use only for areas that may be subjected to erosion for less than 6 months.

I. Temporary Seeding: Use where temporary vegetated cover is required.

3.04 INSTALLATION

A. Traffic-Bearing Aggregate Surface:
1. Excavate minimum of 6 inches.
2. Place geotextile fabric full width and length, with minimum 12 inch overlap at joints.
3. Place and compact at least 6 inches of 1.5 to 3.5 inch diameter stone.

B. Silt Fences:
1. Store and handle fabric in accordance with ASTM D 4873.
2. Where slope gradient is less than 3:1 or barriers will be in place less than 6 months, use nominal 16 inch high barriers with minimum 36 inch long posts spaced at 6 feet maximum, with fabric embedded at least 4 inches in ground.
3. Where slope gradient is steeper than 3:1 or barriers will be in place over 6 months, use nominal 28 inch high barriers, minimum 48 inch long posts spaced at 6 feet maximum, with fabric embedded at least 6 inches in ground.
4. Where slope gradient is steeper than 3:1 and vertical height of slope between barriers is more than 20 feet, use nominal 32 inch high barriers with woven wire reinforcement and steel posts spaced at 4 feet maximum, with fabric embedded at least 6 inches in ground.
5. Install with top of fabric at nominal height and embedment as specified.
6. Embed bottom of fabric in a trench on the upslope side of fence, with 2 inches of fabric laid flat on bottom of trench facing upslope; backfill trench and compact.
7. Do not splice fabric width; minimize splices in fabric length; splice at post only, overlapping at least 18 inches, with extra post.
8. Fasten fabric to steel posts using wire, nylon cord, or integral pockets.
9. Wherever runoff will flow around end of barrier or over the top, provide temporary splash pad or other outlet protection; at such outlets in the run of the barrier, make barrier not more than 12 inches high with post spacing not more than 4 feet.

C. Mulching Over Large Areas:
1. Dry Straw and Hay: Apply 2-1/2 tons per acre; anchor using dull disc harrow or emulsified asphalt applied using same spraying machine at 100 gallons of water per ton of mulch.
2. Erosion Control Matting: Comply with manufacturer's instructions.

D. Mulching Over Small and Medium Areas:
1. Dry Straw and Hay: Apply 4 to 6 inches depth.
2. Erosion Control Matting: Comply with manufacturer's instructions.

E. Temporary Seeding:
1. When hydraulic seeder is used, seedbed preparation is not required.

2. When surface soil has been sealed by rainfall or consists of smooth undisturbed cut slopes, and conventional or manual seeding is to be used, prepare seedbed by scarifying sufficiently to allow seed to lodge and germinate.
3. If temporary mulching was used on planting area but not removed, apply nitrogen fertilizer at 1 pound per 1000 sq ft.
4. On soils of very low fertility, apply 10-10-10 fertilizer at rate of 12 to 16 pounds per 1000 sq ft.
5. Incorporate fertilizer into soil before seeding.
6. Apply seed uniformly; if using drill or cultipacker seeders place seed 1/2 to 1 inch deep deep.
7. Irrigate as required to thoroughly wet soil to depth that will ensure germination, without causing runoff or erosion.
8. Repeat irrigation as required until grass is established.

3.05 MAINTENANCE

A. Inspect preventive measures weekly, within 24 hours after the end of any storm that produces 0.5 inches or more rainfall at the project site, and daily during prolonged rainfall.
B. Repair deficiencies immediately.
C. Silt Fences:
   1. Promptly replace fabric that deteriorates unless need for fence has passed.
   2. Remove silt deposits that exceed one-third of the height of the fence.
   3. Repair fences that are undercut by runoff or otherwise damaged, whether by runoff or other causes.
D. Clean out temporary sediment control structures weekly and relocate soil on site.
E. Place sediment in appropriate locations on site; do not remove from site.

3.06 CLEAN UP

A. Remove temporary measures after permanent measures have been installed, unless permitted to remain by SAM GARCIA ARCHITECT, LLC.
B. Clean out temporary sediment control structures that are to remain as permanent measures.
C. Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.

END OF SECTION

SECTION 016000

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. General product requirements.
B. Transportation, handling, storage and protection.
C. Product option requirements.
D. Substitution limitations and procedures.
E. Procedures for OWNER-supplied products.
F. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 RELATED REQUIREMENTS

A. Section 014000 - Quality Requirements: Product quality monitoring.
B. Section 017320 - Waste Management: Waste disposal requirements potentially affecting packaging and substitutions.

1.03 SUBMITTALS

A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
   1. Submit within 15 days after date of Notice to Proceed.
   2. For products specified only by reference standards, list applicable reference standards.
   3. Identify products that have a long lead-time and will be priority for early submittal and review.
B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. **Supplement manufacturers' standard data to provide information specific to this Project**.
C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
   1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.
E. Indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

PART 2 - PRODUCTS

2.01 EXISTING PRODUCTS

A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
B. Unforeseen historic items encountered remain the property of the OWNER; notify OWNER promptly upon discovery; protect, remove, handle, and store as directed by OWNER.
C. Reused Products: Reused products include materials and equipment previously used in this or other construction, salvaged and refurbished as specified.

2.02 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by the Contract Documents.

2.03 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.04 MAINTENANCE MATERIALS

A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 - EXECUTION

3.01 SUBSTITUTION PROCEDURES

A. SAM GARCIA ARCHITECT, LLC will consider requests for substitutions only **within 30 days after date of Agreement.**
B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
C. A request for substitution constitutes a representation that the submitter:
    1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
    2. Will provide the same warranty for the substitution as for the specified product.
    3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to OWNER.
    4. Waives claims for additional costs or time extension that may subsequently become apparent.
D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
E. Substitution Submittal Procedure:
    1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
    2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
    3. SAM GARCIA ARCHITECT, LLC will notify in writing of decision to accept or reject request.

3.02 OWNER-SUPPLIED PRODUCTS

A. OWNER'S Responsibilities:

    1. Arrange for and deliver OWNER reviewed shop drawings, product data, and samples, to site.
    2. Arrange and pay for product delivery to site.
    3. On delivery, inspect products jointly with CONTRACTOR.

4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
5. Arrange for manufacturers' warranties, inspections, and service.

B. Contractor's Responsibilities:
1. Review OWNER reviewed shop drawings, product data, and samples.
2. Receive and unload products at site; inspect for completeness or damage jointly with OWNER.
3. Handle, store, install and finish products.
4. Repair or replace items damaged after receipt.

3.03 TRANSPORTATION AND HANDLING

A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
B. Transport and handle products in accordance with manufacturer's instructions.
C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.04 STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
B. Store and protect products in accordance with manufacturers' instructions.
C. Store with seals and labels intact and legible.
D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
E. For exterior storage of fabricated products, place on sloped supports above ground.
F. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
G. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
H. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
I. Prevent contact with material that may cause corrosion, discoloration, or staining.
J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 017300

EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.
B. Requirements for alterations work, including selective demolition, except removal, disposal, and/or remediation of hazardous materials and toxic substances.
C. Pre-installation meetings.
D. Cutting and patching.
E. Surveying for laying out the work.
F. Cleaning and protection.
G. Starting of systems and equipment.
H. Demonstration and instruction of OWNER'S personnel.
I. Closeout procedures, except payment procedures.
J. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

A. Section 011000 - Summary:
B. Section 013300 - Submittals procedures.
C. Section 014000 - Quality Requirements: Testing and inspection procedures.
D. Section 015000 - Temporary Facilities and Controls: Temporary exterior enclosures.
E. Section 015750 - Temporary Erosion and Sedimentation Control:
G. Section 017320 - Waste Management: Additional procedures for trash/waste removal, recycling, salvage, and reuse.
H. Section 017800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.

1.03 QUALIFICATIONS

A. For survey work, employ a land surveyor registered in Texas and acceptable to SAM GARCIA ARCHITECT, LLC. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.

1.04 PROJECT CONDITIONS

A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
D. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere.
E. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

F. Pest Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
G. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.
H. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

1.05 COORDINATION

A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
B. Notify affected utility companies and comply with their requirements.
C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
E. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
G. Coordinate completion and cleanup of work of separate sections.
H. After OWNER occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of OWNER's activities.

PART 2 - PRODUCTS

2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
B. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
C. Examine and verify specific conditions described in individual specification sections.
D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.
B. Seal cracks or openings of substrate prior to applying next material or substance.
C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PRE-INSTALLATION MEETINGS

A. When required in individual specification sections, convene a pre-installation meeting at the site prior to commencing work of the section.
B. Require attendance of parties directly affecting, or affected by, work of the specific section.
C. Notify SAM GARCIA ARCHITECT, LLC four days in advance of meeting date.
D. Prepare agenda and preside at meeting:
    1. Review conditions of examination, preparation and installation procedures.
    2. Review coordination with related work.
E. Record minutes and distribute copies within two days after meeting to participants, with two copies to SAM GARCIA ARCHITECT, LLC, OWNER, participants, and those affected by decisions made.

3.04 LAYING OUT THE WORK

A. Verify locations of survey control points prior to starting work.
B. Promptly notify SAM GARCIA ARCHITECT, LLC of any discrepancies discovered.
C. Control datum for survey is that established by OWNER provided survey.
D. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
E. Promptly report to SAM GARCIA ARCHITECT, LLC the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
F. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to SAM GARCIA ARCHITECT, LLC.
G. Utilize recognized engineering survey practices.
H. Establish a minimum of two permanent benchmarks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.
I. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
    1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations;
    2. Grid or axis for structures.
    3. Building foundation, column locations, and ground floor elevations.
J. Periodically verify layouts by same means.
K. Maintain a complete and accurate log of control and survey work as it progresses.

3.05 GENERAL INSTALLATION REQUIREMENTS

A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.06 CUTTING AND PATCHING

A. Whenever possible, execute the work by methods that avoid cutting or patching.
B. See Alterations article above for additional requirements.
C. Perform whatever cutting and patching is necessary to:
    1. Complete the work.
    2. Fit products together to integrate with other work.
    3. Provide openings for penetration of mechanical, electrical, and other services.
    4. Match work that has been cut to adjacent work.
    5. Repair areas adjacent to cuts to required condition.
    6. Repair new work damaged by subsequent work.
    7. Remove samples of installed work for testing when requested.
    8. Remove and replace defective and non-conforming work.
D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight-exposed surfaces.
F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
G. Restore work with new products in accordance with requirements of Contract Documents.
H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07840, to full thickness of the penetrated element.
J. Patching:
    1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
    2. Match color, texture, and appearance.
    3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.07 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.08 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.
B. Provide special protection where specified in individual specification sections.
C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

G. Prohibit traffic from landscaped areas.
H. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.09 SYSTEM STARTUP

A. Coordinate schedule for start-up of various equipment and systems.
B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
D. Verify that wiring and support components for equipment are complete and tested.
E. Execute start-up under supervision of applicable personnel and manufacturer's representative in accordance with manufacturers' instructions.
F. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.10 DEMONSTRATION AND INSTRUCTION

A. Demonstrate operation and maintenance of products to OWNER's personnel two weeks prior to date of Substantial Completion.
B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.
D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with OWNER's personnel in detail to explain all aspects of operation and maintenance.
E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.11 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.12 FINAL CLEANING

A. Execute final cleaning after Substantial Completion but before making final application for payment.
B. Use cleaning materials that are nonhazardous.
C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
E. Clean filters of operating equipment.
F. Clean debris from roofs, gutters, downspouts, and drainage systems.
G. Clean site; sweep paved areas, rake clean landscaped surfaces.
H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.13 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.
B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in's Notice of Substantial Completion.
C. Notify SAM GARCIA ARCHITECT, LLC when work is considered ready for Substantial Completion.
D. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for SAM GARCIA ARCHITECT, LLC.
E. Correct items of work listed in executed Certificates of Substantial Completion
F. Notify SAM GARCIA ARCHITECT, LLC when work is considered finally complete.
G. Complete items of work determined by SAM GARCIA ARCHITECT, LLC's final inspection.

3.14 MAINTENANCE

A. Provide service and maintenance of components indicated in specification sections.
B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Weslaco Independent School District.

END OF SECTION

SECTION 017320

WASTE MANAGEMENT

PART 1 - GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

A. OWNER and CITY OF McALLEN requires that this project generate the least amount of trash and waste possible.
B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.
D. Required Recycling, Salvage, and Reuse: The following item should be collected and taken to recycling facilities - if available in Hidalgo County, or adjacent communities:
   1. Aluminum and plastic beverage containers.
   2. Corrugated cardboard.
   3. Wood pallets.
   4. Clean dimensional wood.
   5. Asphalt paving: May be recycled into paving for project.
   6. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
   7. Glass.
   8. Plastic buckets.
   9. Carpet, carpet cushion, carpet tile, and carpet remnants, both new and removed: DuPont (http://flooring.dupont.com) and Interface (www.interfaceinc.com) conduct reclamation programs.
   10. Rigid foam insulation.
E. Shall submit periodic Waste Disposal Reports; all landfill disposal, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues.
F. Methods of trash/waste disposal that are not acceptable are:
   1. Burning on the project site.
   2. Burying on the project site.
   3. Dumping or burying on other (non-landfill) property, public or private, or bodies of water.
   4. Other illegal dumping or burying.
   5. Incineration, either on- or off-site.
G. Regulatory Requirements: The Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.02 RELATED REQUIREMENTS

A. Section 013100 - Administrative Requirements: Additional requirements for project meetings, reports, submittal procedures, and project documentation.
B. Section 015750 - Temporary Facilities and Controls: Additional requirements related to trash/waste collection and removal facilities and services.
C. Section 016000 - Product Requirements: Waste prevention requirements related to delivery, storage, and handling.

D. Section 017300 - Execution Requirements: Trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.
E. Section 022300 - Site Clearing: Handling and disposal of land clearing debris.

1.03 DEFINITIONS

A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
I. Return: To give back reusable items or unused products to vendors for credit.
J. Reuse: To reuse a construction waste material in some manner on the project site.
K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

1.04 SUBMITTALS

A. See Section 013000 - SUBMITTAL PROCEDURES.
B. Waste Disposal Reports: Submit at monthly intervals, indicating quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.
    1. Submit updated Report with each Application for Progress Payment.
    2. Submit Report on a form acceptable to OWNER.
    3. Landfill Disposal: Include the following information:
        a. Identification of material.
        b. Amount, in tons or cubic yards, of trash/waste material from the project disposed of in landfills.
        c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
        d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
    4. Recycled and Salvaged Materials: Include the following information for each:
        a. Identification of material, including those retrieved by installer for use on other projects.
        b. Amount, in tons or cubic yards, date removed from the project site, and receiving party.
        c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
        d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.

e. Certification by receiving party that materials will not be disposed of in landfills or incineration.

5. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 WASTE MANAGEMENT PROCEDURES

A. See Section 013000 for additional requirements for project meetings, reports, submittal procedures, and project documentation.

B. See Section 015000 for additional requirements related to trash/waste collection and removal facilities and services.

C. See Section 016000 for waste prevention requirements related to delivery, storage, and handling.

3.02 WASTE MANAGEMENT PLAN IMPLEMENTATION

A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.

B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, OWNER, and SAM GARCIA ARCHITECT, LLC.

C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.

D. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
   1. As a minimum, provide:
      a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
      b. Separate dumpsters for each category of recyclable.
      c. Recycling bins at worker lunch area.
   2. Provide adequate space for pick-up and delivery and convenience to subcontractors.
   3. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.

E. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.

F. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.

END OF SECTION

SECTION 017800

CLOSEOUT SUBMITTALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Project Record Documents.
B. Operation and Maintenance Data.
C. Warranties and bonds.

1.02 RELATED REQUIREMENTS

A. Section 007000 - General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
B. Section 013300 - Submittals procedures, shop drawings, product data, and samples.
C. Section 017300 - Execution Requirements: Contract closeout procedures.
D. Individual Product Sections: Specific requirements for operation and maintenance data.
E. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

A. Project Record Documents: Submit documents to SAM GARCIA ARCHITECT, LLC with claim for final Application for Payment.
B. Operation and Maintenance Data:
   1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. SAM GARCIA ARCHITECT, LLC will review draft and return one copy with comments.
   2. For equipment, or component parts of equipment put into service during construction and operated by OWNER, submit completed documents within ten days after acceptance.
   3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with SAM GARCIA ARCHITECT, LLC comments. Revise content of all document sets as required prior to final submission.
   4. Submit two sets of revised final documents in final form within 10 days after final inspection.
C. Warranties and Bonds:
   1. For equipment or component parts of equipment put into service during construction with OWNER's permission, submit documents within 10 days after acceptance.
   2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
   3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other modifications to the Contract.
5. Reviewed shop drawings, product data, and samples.

B. Ensure entries are complete and accurate, enabling future reference by OWER.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and modifications.

F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish first floor datum.
2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
4. Field changes of dimension and detail.
5. Details not on original Contract drawings.

3.02 OPERATION AND MAINTENANCE DATA

A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.

D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

A. For Each Product, Applied Material, and Finish:
1. Product data, with catalog number, size, composition, and color and texture designations.
2. Information for re-ordering custom manufactured products.

B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

C. Additional information as specified in individual product specification sections.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

A. For Each Item of Equipment and Each System:
1. Description of unit or system, and component parts.
2. Identify function, normal operating characteristics, and limiting conditions.
3. Include performance curves, with engineering data and tests.
4. Complete nomenclature and model number of replaceable parts.

B. Panelboard Circuit Directories: Provide elec. service characteristics, controls, & communications; typed.
C. Include color-coded wiring diagrams as installed.
D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.
E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
F. Provide servicing and lubrication schedule, and list of lubricants required.
G. Include manufacturer's printed operation and maintenance instructions.
H. Include sequence of operation by controls manufacturer.
I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
J. Provide control diagrams by controls manufacturer as installed.
K. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
L. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
M. Include test and balancing reports.
N. Additional Requirements: As specified in individual product specification sections.

3.05 OPERATION AND MAINTENANCE MANUALS

A. Prepare instructions & data by personnel experienced in maintenance and operation of described products.
B. Prepare data in the form of an instructional manual.
C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
E. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
F. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
G. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
H. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
    1. Part 1: Directory, listing names, addresses, and telephone numbers of SAM GARCIA ARCHITECT, LLC, Subcontractors, and major equipment suppliers.
    2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
        a. Significant design criteria.
        b. List of equipment.
        c. Parts list for each component.
        d. Operating instructions.
        e. Maintenance instructions for equipment and systems.
        f. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
    3. Part 3: Project documents and certificates, including the following:
        a. Shop drawings and product data.
        b. Air and water balance reports.

c. Photocopies of warranties and bonds.

I. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of SAM GARCIA ARCHITECT, LLC, Consultants, and with name of responsible parties; schedule of products and systems, indexed to content of the volume.

3.06 WARRANTIES AND BONDS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with OWNER's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
B. Verify that documents are in proper form, contain full information, and are notarized.
C. Co-execute submittals when required.
D. Retain warranties and bonds until time specified for submittal.
E. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.
F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of and equipment supplier; and name of responsible company principal.
G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

END OF SECTION

SECTION 022250

DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Selective demolition of built site elements.
B. Selective demolition of building elements for alterations purposes.

1.02 RELATED REQUIREMENTS

A. Section 011000 - Summary: Limitations on use of site and premises.
B. Section 011000 - Summary: Description of items to be salvaged or removed for re-use by.
C. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
D. Section 016000 - Product Requirements: Handling and storage of items removed for salvage and relocation.
E. Section 017300 - Execution Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products.
F. Section 017320 - Waste Management: Limitations on disposal of removed materials; requirements for recycling.
G. Section 02230 - Site Clearing: Vegetation and existing debris removal.
H. Section 02310 - Grading: Topsoil removal.
I. Section 02310 - Grading: Fill material for filling holes, pits, and excavations generated as a result of removal operations.
J. Section 02316 - Fill and Backfill: Fill material for filling holes, pits, and excavations generated as a result of removal operations.
K. Section 02900 - Planting
L. Section 02902 - Vegetation Protection

1.03 REFERENCE STANDARDS

A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.

1.04 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES
B. Site Plan: Showing:
   1. Vegetation to be protected.
   2. Areas for temporary construction and field offices.
C. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
   1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.
   2. Identify demolition firm and submit qualifications.
   3. Include a summary of safety procedures.

1.05 PROJECT CONDITIONS

A. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

PART 2 PRODUCTS

2.01 MATERIALS

A. Fill Material: As specified in Section 02310 - Grading

PART 3 EXECUTION

3.01 SCOPE

A. Remove paving and curbs as required to accomplish new work.
B. Remove all paving and curbs within construction limits indicated on drawings.
C. Remove other items indicated, for salvage, relocation, and recycling.
D. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as required so that required rough grade elevations do not subside within one year after completion.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
   3. Provide, erect, and maintain temporary barriers and security devices.
   4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   5. Do not close or obstruct roadways or sidewalks without permit.
   6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
   7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
B. Do not begin removal until receipt of notification to proceed from Architect.
C. Protect existing structures and other elements that are not to be removed.
   1. Provide bracing and shoring.
   2. Prevent movement or settlement of adjacent structures.
   3. Stop work immediately if adjacent structures appear to be in danger.
D. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
   1. Verify that construction and utility arrangements are as shown.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of demolition work constitutes acceptance of existing conditions.
B. Remove existing work as indicated and as required to accomplish new work.
   1. Remove items indicated on drawings.

3.04 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk, and trash from site.
B. Remove from site all materials not to be reused on site; comply with requirements of Section 017320 - Waste Management.
C. Leave site in clean condition, ready for subsequent work.
D. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

SECTION 022300

SITE CLEARING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Clearing and protection of vegetation.
B. Removal of existing pavement.
C. Removal of existing fencing

1.02 RELATED REQUIREMENTS

A. Section 011000 - Summary: Limitations on use of site and premises.
B. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
C. Section 017300 - Execution Requirements: Project conditions; protection of benchmarks, survey control points, and existing construction to remain; reinstallation of removed products.
D. Section 02310 - Grading: Fill material for filling holes, pits, and excavations generated as a result of removal operations.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS

A. See Section 013000 - SUBMITTAL PROCEDURES.
B. Site Plan: Showing:
   1. Vegetation Clearing Areas.
   2. Pavement areas to be removed
   3. Fencing and gates to be removed
   4. Areas for temporary construction and field offices.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Fill Material: As specified in Section 023100 - Grading

PART 3 - EXECUTION

3.01 SITE CLEARING

A. Comply with other requirements specified in Section 017300.
B. Minimize production of dust due to clearing operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

3.02 VEGETATION

A. Do not remove or damage vegetation beyond the following limits:
   1. 40 feet outside the building perimeter.
   2. 10 feet each side of surface walkways, patios, surface parking, and utility lines less than 12 inches in diameter.

3. 15 feet each side of roadway curbs and main utility trenches.
4. 25 feet outside perimeter of pervious paving areas that must not be compacted by construction traffic.

B. Install substantial, highly visible fences at least 3 feet high to prevent inadvertent damage to vegetation to remain:
1. At vegetation removal limits.

C. In areas where vegetation must be removed but no construction will occur other than pervious paving, remove vegetation with minimum disturbance of the subsoil.

D. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated.
1. Chip, grind, crush, or shred vegetation for mulching, composting, or other purposes; preference should be given to on-site uses.
2. Trees: Replace trees as per City of McAllen vegetation requirements.
3. Sod: Re-use on site if possible; otherwise sell if marketable, and if not, treat as specified for other vegetation removed.

E. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to Owner.

3.03 DEBRIS

A. Remove debris, junk, and trash from site.
B. Leave site in clean condition, ready for subsequent work.
C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

SECTION 023610

SOIL TREATMENT FOR TERMITE CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Chemical soil treatment.
B. Termite Shields

1.02 REFERENCE STANDARDS

A. Title 7, United States Code, 136 through 136y - Federal Insecticide, Fungicide and Rodenticide Act; United States Code; 1947 (Revised 2001).

1.03 SUBMITTALS

A. See Section 013000 - SUBMITTAL PROCEDURES.
B. Product Data: Indicate toxicants to be used, composition by percentage, dilution schedule, intended application rate.
C. Test Reports: Indicate regulatory agency approval reports when required.
D. Manufacturer's Application Instructions: Indicate caution requirements.
E. Manufacturer's Certificate: Certify that toxicants meet or exceed specified requirements.
F. Warranty: Submit warranty and ensure that forms have been completed in OWNER'S name.

1.04 QUALITY ASSURANCE

1.05 REGULATORY REQUIREMENTS

A. Conform to applicable code for requirements for application, and comply with EPA regulations.
B. Provide certificate of compliance from authority having jurisdiction indicating approval of toxicants.

1.06 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
B. Provide five year installer's warranty against damage to building caused by termites.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers:
   1. Bayer Environmental Science Corp; Product ____: www.nobugs.com.
   2. FMC Professional Solutions; Product ____: www.fmcprosolutions.com.
   3. Syngenta Professional Products; Product ____: www.syngentaprofessionalproducts.com.
   4. Substitutions: See Section 016000 - Product Requirements.
B. Toxicant Chemical: EPA approved; synthetically color dyed to permit visual identification of treated soil.
C. Diluent: Recommended by toxicant manufacturer.
D. Metal termite shields for structural components that come into contact with the ground below suspended concrete slabs (not applicable for slab-on-grade conditions).

PART 3 - EXECUTION

3.01 APPLICATION

A. Comply with requirements of U.S. EPA and applicable State and local codes.
B. Spray apply toxicant in accordance with manufacturer's instructions.
C. Apply toxicant at following locations:
D. Apply extra treatment to structure penetration surfaces such as pipe or ducts, and soil penetrations such as grounding rods or posts.
E. Install metal termite shields on foundation walls and footings at crawl spaces and basement areas.
F. Re-treat disturbed treated soil with same toxicant as original treatment.
G. If inspection or testing identifies the presence of termites, re-treat soil and re-test.

3.02 PROTECTION

A. Do not permit soil grading over treated work.

END OF SECTION

SECTION 031010

CONCRETE FORMS AND ACCESSORIES

PART 1 - GENERAL

1.1 SECTION INCLUDES
- A. HDPE Plastic, single use round forms for cast-in-place concrete applications including the following:
  - 1. Concrete pour-in-place bollards.

1.2 RELATED SECTIONS
- A. Section 033000 - Cast-in-Place Concrete.

1.3 SUBMITTALS
- A. Submit under provisions of Section 01300.
- B. Manufacturer's Data: Product data sheets and installation instructions.

1.4 DELIVERY, STORAGE, AND HANDLING
- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Store forms in accordance with manufacturer's instructions. Store all product upright, and do not allow the colored Ceme Tubes to roll on their side. Protect from abrasive abuse.
- C. Protect forms during handling and erection to prevent damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
- A. Acceptable Manufacturer: Ceme-Tube LLC, which is located at: 579 Schommer Dr.; Hudson, WI 54016; Tel: 715-377-2133; Fax: 715-377-2135; Email:request info (info@cemetube.com); Web:www.cemetube.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 BOLLARD FORMS
- A. Round HDPE Forms for Bollards: Bollard Ceme-Tube with 8 inch (203 mm) diameter by Ceme-Tube with the following characteristics:
  - 1. Material: Reflective yellow color above grade and standard black color below grade, heavy duty seamless HDPE plastic, impervious to moisture.
  - 2. Appearance: Uniform smooth maintenance free appearance, without spiral form lines. Comes with dome cap to finish installation after pouring.
  - 3. Length: 4 feet (1219 mm) above grade yellow tube. Can be made taller by adding additional yellow tubes. Below grade tube is 4 feet (102 mm). Can be made longer by adding additional black below grade tubes.
  - 4. Dome Cap: Included; match size of forming tube.

PART 3 - EXECUTION

3.1 EXAMINATION
- A. Examine areas to receive forming tubes. Notify Architect if areas are not acceptable. Do not begin erection until unacceptable conditions have been corrected.

3.2 INSTALLATION
- A. Place and brace forming tubes in accordance with manufacturer's instructions.
- B. Protect above grade "colored" Ceme Tubes from abrasive job site damage. Store upright, and do not allow them to roll on their sides.
- C. Erect forming tubes at locations and to elevations as indicated on the Drawings. Erect forming tubes plumb. Bollard forming tubes can be trimmed to proper elevation after setting and before filling with concrete.
- D. Do not use forming tubes that are damaged or contain defects.
- E. Use waterproof sheeting around Bollard Ceme Tubes to help keep uncured concrete from staining the outside finished surfaces. If concrete is spilled on outside surfaces, wash off with water and a sponge before it cures.

END OF SECTION

SECTION 03 10 00

CONCRETE FORMS AND ACCESSORIES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Formwork for cast-in place concrete.
2. Shoring, bracing, and anchorage.
3. Architectural form liners.
4. Form accessories.
5. Form stripping.

B. Related Sections:
1. Section 032000 - Concrete Reinforcement.
2. Section 033000 - Cast-in-Place Concrete.

1.2 REFERENCES

A. American Concrete Institute:
1. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials.
2. ACI 301 - Specifications for Structural Concrete.
3. ACI 318 - Building Code Requirements for Structural Concrete.
4. ACI 347 - Guide to Formwork for Concrete.

B. American Forest and Paper Association:
1. AF&PA - National Design Specifications for Wood Construction.

C. The Engineered Wood Association:
1. APA/EWA PS 1 - Voluntary Product Standard for Construction and Industrial Plywood.

D. ASTM International:
1. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
2. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.

E. West Coast Lumber Inspection Bureau:
1. WCLIB - Standard Grading Rules for West Coast Lumber.

1.3 DESIGN REQUIREMENTS

A. Design, engineer and construct formwork, shoring and bracing in accordance with ACI 318 to conform to design and applicable code requirements to achieve concrete shape, line and dimension as indicated on Drawings.

1.4 PERFORMANCE REQUIREMENTS

A. Vapor Retarder Permeance: Maximum .03 perms when tested in accordance with ASTM E96, Procedure A.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 347 ACI 301 ACI 318.

B. For wood products furnished for work of this Section, comply with AF&PA.

C. Perform Work in accordance with State Municipality of Highways Public Work's standard.

1.6 COORDINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Coordinate this Section with other sections of work, requiring attachment of components to formwork.

PART 2 PRODUCTS

2.1 WOOD FORM MATERIALS

A. Form Materials: At discretion of Contractor.

2.2 FORMWORK ACCESSORIES

A. Vapor Retarder: Where indicated on Drawings, 10 mil thick polyethylene sheet manufacture by:
   1. Stego Wrap Class A: by Stego Industries LLC (887) 464-7834
   2. Griffolyn by Reef Industries (800) 231-6074
   3. VaporBlock 10 by Raven Industries (800) 635-3456
   4. Perminator Vapor – May by W.R. Meadows (800) 342-5976
   5. Xtreme by Tex-Trude (281) 452-5961
   6. Or Equivalent

B. Bituminous Joint Filler: ASTM D1751.

C. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Size, strength and character to maintain formwork in place while placing concrete.

D. Water Stops: Rubber Polyvinyl chloride, minimum 1,750 psi tensile strength, minimum 50 degrees F to plus 175 degrees F working temperature range, inch wide, maximum possible lengths, ribbed profile, preformed corner sections, heat welded jointing.

****** OR ******

E. Waterstop: Flexible strip of bentonite waterproofing compound in coil form for joints in concrete construction.
   1. Colloid Environmental Technologies Company Model.
   2. TC MiraDRi Model.
   3. Paramount Technical Products Model.
   4. Substitutions: Section 016000 - Product Requirements Not Permitted.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Verify lines, levels, and centers before proceeding with formwork. Verify dimensions agree with Drawings.

C. When formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement before proceeding, request instructions from Architect/Engineer.

3.2 INSTALLATION

A. Earth Forms:
   1. Earth forms are not permitted.

B. Formwork - General:
   1. Provide top form for sloped surfaces steeper than 1.5 horizontal to 1 vertical to hold shape of concrete during placement, unless it can be demonstrated that top forms can be omitted.
   2. Construct forms to correct shape and dimensions, mortar-tight, braced, and of sufficient strength to maintain shape and position under imposed loads from construction operations.
   3. Camber forms where necessary to produce level finished soffits unless otherwise shown on Drawings.
   4. Carefully verify horizontal and vertical positions of forms. Correct misaligned or misplaced forms before placing concrete.

5. Complete wedging and bracing before placing concrete.

C. Forms for Smooth Finish Concrete:
1. Use steel, plywood or lined board forms.
2. Use clean and smooth plywood and form liners, uniform in size, and free from surface and edge damage capable of affecting resulting concrete finish.
3. Install form lining with close-fitting square joints between separate sheets without springing into place.
4. Use full size sheets of form lines and plywood wherever possible.
5. Tape joints to prevent protrusions in concrete.
6. Use care in forming and stripping wood forms to protect corners and edges.
7. Level and continue horizontal joints.
8. Keep wood forms wet until stripped.

D. Erect formwork, shoring, and bracing to achieve design requirements, in accordance with requirements of ACI 301 ACI 318.

E. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.

F. Obtain Architect/Engineer’s approval before framing openings in structural members not indicated on Drawings.

G. Install fillet and chamfer strips on external corners of beams joists columns and.

H. Install void forms in accordance with manufacturer's recommendations.
1. SureVoid Products, Inc., Englewood, CO (800) 458-5444.

I. Do not reuse wood formwork more than times for concrete surfaces to be exposed to view. Do not patch formwork.

3.3 APPLICATION - FORM RELEASE AGENT

A. Apply form release agent on formwork in accordance with manufacturer's recommendations.

B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.

C. Do not apply form release agent where concrete surfaces are indicated to receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

D. Reuse and Coating of Forms: Thoroughly clean forms and reapply form coating before each reuse. For exposed work, do not reuse forms with damaged faces or edges. Apply form coating to forms in accordance with manufacturer’s specifications. Do not coat forms for concrete indicated to receive “scored finish”. Apply form coatings before placing reinforcing steel.

3.4 INSTALLATION - INSERTS, EMBEDDED PARTS, AND OPENINGS

A. Install formed openings for items to be embedded in or passing through concrete work.

B. Locate and set in place items required to be cast directly into concrete.

C. Coordinate with Work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other Work.

D. Install accessories straight, level, and plumb. Ensure items are not disturbed during concrete placement.

E. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.

F. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

G. Form Ties:
1. Use sufficient strength and sufficient quantity to prevent spreading of forms.
2. Place ties at least 1 inch away from finished surface of concrete.
3. Leave inner rods in concrete when forms are stripped.
4. Space form ties equidistant, symmetrical and aligned vertically and horizontally unless otherwise shown on Drawings.

H. Arrangement: Arrange formwork to allow proper erection sequence and to permit form removal without damage to concrete.

I. Construction Joints:
1. Install surfaced pouring strip where construction joints intersect exposed surfaces to provide straight line at joints.
2. Just prior to subsequent concrete placement, remove strip and tighten forms to conceal shrinkage.
3. Show no overlapping of construction joints. Construct joints to present same appearance as butted plywood joints.
4. Arrange joints in continuous line straight, true and sharp.

J. Openings for Items Passing Through Concrete:
1. Frame openings in concrete where indicated on Drawings. Establish exact locations, sizes, and other conditions required for openings and attachment of work specified under other sections.
2. Coordinate work to avoid cutting and patching of concrete after placement.
3. Perform cutting and repairing of concrete required as result of failure to provide required openings.

K. Screeds:

1. Set screeds and establish levels for tops of concrete slabs and levels for finish on slabs.
2. Slope slabs to drain where required or as shown on Drawings.
3. Before depositing concrete, remove debris from space to be occupied by concrete and thoroughly wet forms. Remove freestanding water.

L. Screed Supports:
1. For concrete over waterproof membranes and vapor retarder membranes, use cradle, pad or base type screed supports which will not puncture membrane.
2. Staking through membrane is not be permitted.

M. Cleanouts and Access Panels:
1. Provide removable cleanout sections or access panels at bottoms of forms to permit inspection and effective cleaning of loose dirt, debris and waste material.
2. Clean forms and surfaces against which concrete is to be placed. Remove chips, saw dust and other debris. Thoroughly blow out forms with compressed air just before concrete is placed.

3.5 FORM CLEANING

A. Clean forms as erection proceeds, to remove foreign matter within forms.

B. Clean formed cavities of debris prior to placing concrete.

C. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.

3.6 FORM REMOVAL

A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads and removal has been approved by Architect/Engineer.

B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.

C. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.

D. Leave forms in place for minimum number of days as specified in ACI 347.

3.7 ERECTION TOLERANCES

A. Construct formwork to maintain tolerances required by ACI 301 ACI 318.

****** OR ******

B. Camber slabs and beams 1/4 inch per 10 feet in accordance with ACI 301 ACI 318.

3.8 FIELD QUALITY CONTROL

A. Section 014000 - Quality Requirements 017000 - Execution Requirements: Field inspecting, testing, adjusting, and balancing.

B. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and that supports, fastenings, wedges, ties, and items are secure.

C. Notify Architect/Engineer after placement of reinforcing steel in forms, but prior to placing concrete.

D. Schedule concrete placement to permit formwork inspection before placing concrete.

END OF SECTION

SECTION 03 20 00

CONCRETE REINFORCEMENT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Reinforcing bars.
2. Welded wire fabric.
3. Reinforcement accessories.

B. Related Sections:
1. Section 031000 - Concrete Forms and Accessories.
2. Section 033000 - Cast-in-Place Concrete.
3. Section 033500 - Concrete: Reinforcement for concrete floor toppings.

1.2 REFERENCES

A. American Concrete Institute:
1. ACI 301 - Specifications for Structural Concrete.
2. ACI 318 - Building Code Requirements for Structural Concrete.
3. ACI 530.1 - Specifications for Masonry Structures.
4. ACI SP-66 - ACI Detailing Manual.

B. ASTM International:
1. ASTM A82 - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.
2. ASTM A184/A184M - Standard Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.
3. ASTM A496 - Standard Specification for Steel Wire, Deformed, for Concrete Reinforcement.
4. ASTM A497 - Standard Specification for Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.
5. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
6. ASTM A704/A704M - Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.
7. ASTM A706/A706M - Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
8. ASTM A767/A767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
9. ASTM A775/A775M - Standard Specification for Epoxy-Coated Reinforcing Steel Bars.

10. ASTM A884/A884M - Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Fabric for Reinforcement.
11. ASTM A934/A934M - Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
12. ASTM A996/A996M - Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement.
13. ASTM D3963/D3963M - Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Reinforcing Steel Bars.

C. American Welding Society:
1. AWS D1.4 - Structural Welding Code - Reinforcing Steel.

D. Concrete Reinforcing Steel Institute:
1. CRSI - Manual of Standard Practice.
2. CRSI - Placing Reinforcing Bars.

1.3 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal procedures.

B. Shop Drawings: Indicate bar sizes, spacings, locations, and quantities of reinforcing steel and welded wire fabric, bending and cutting schedules, and supporting and spacing devices.

C. Certificates: Submit AWS qualification certificate for welders employed on the Work.

D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.
1. Submit certified copies of mill test report of reinforcement materials analysis.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with CRSI - Manual of Standard Practice, ACI 301, and ACI 318.

B. Prepare shop drawings in accordance with ACI SP-66.

1.5 QUALIFICATIONS

A. Welders: AWS qualified within previous 12 months.

1.6 COORDINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Coordinate with placement of formwork, formed openings and other Work.

PART 2 PRODUCTS

2.1 REINFORCEMENT

A. Deformed and Plain Reinforcement: ASTM A615/A615M; 60 ksi yield strength, steel bars, unfinished.

2.2 ACCESSORY MATERIALS

A. Tie Wire: Minimum 16 gage annealed.

B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor retarder puncture.

C. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic tipped steel; size and shape to meet Project conditions.

D. Reinforcing Splicing Devices: Mechanical type; full tension and compression; sized to fit joined reinforcing.

E. Epoxy Coating Patching Material: Type as recommended by coating manufacturer.

2.3 FABRICATION

A. Fabricate concrete reinforcement in accordance with CRSI Manual of Practice, and ACI 318, on and all applicable codes.

B. Form standard hooks for 180 degree bends, 90 degree bend, stirrup and tie hooks, and seismic hooks as indicated on Drawings.

C. Form reinforcement bends with minimum diameters in accordance with ACI 318 and all applicable codes.

D. Fabricate column reinforcement with offset bends at reinforcement splices.

E. Form spiral column reinforcement from minimum 3/8 inch diameter continuous deformed bar or wire.

F. Form ties and stirrups from the following:
   1. For bars No. 10 and Smaller: No. 3 deformed bars.
   2. For bars No. 11 and Larger: No. 4 deformed bars.

G. Weld reinforcement in accordance with AWS D1.4.

H. Galvanized Epoxy-Coated Reinforcement: Clean surfaces, weld and re-protect welded joint in accordance with CRSI.

I. Locate reinforcement splices not indicated on Drawings, at point of minimum stress. Review location of splices with Architect/Engineer.

2.4 SOURCE QUALITY CONTROL

A. Section 014000 - Quality Requirements: Testing, inspection and analysis requirements.

B. Make completed reinforcement available for inspection at manufacturer's factory prior to packaging for shipment. Notify Architect/Engineer at least seven days before inspection is allowed.

C. When fabricator is approved by authority having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
1. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 EXECUTION

3.1 PLACEMENT

A. Place, support and secure reinforcement against displacement. Do not deviate from required position beyond specified tolerance.
1. Do not weld crossing reinforcement bars for assembly.

B. Do not displace or damage vapor retarder.

C. Accommodate placement of formed openings.

D. Space reinforcement bars with minimum clear spacing in accordance with ACI 318 of one bar diameter, but not less than 1 inch.
1. Where bars are indicated in multiple layers, place upper bars directly above lower bars.

E. Maintain concrete cover around reinforcement in accordance with ACI 318 applicable code as follows:

Footings and Concrete Formed Against Earth		3 inches
Concrete exposed to earth or weather	No. 6 bars and larger	2 inches
	No. 5 bars and smaller	1-1/2 inches
Supported Slabs, Walls, and Joists	No. 14 bars and larger	1-1/2 inches
	No. 11 bars and smaller	3/4 inches
Beams and Columns		1-1/2 inches

Shell and Folded Plate Members	No. 6 bars and larger	3/4 inches
	No. 5 bars and smaller	1/2 inches

3.2 ERECTION TOLERANCES

A. Section 014000 - Quality Requirements: Tolerances.

B. Install reinforcement within the following tolerances for flexural members, walls, and compression members:

Reinforcement Depth	Depth Tolerance	Concrete Cover Tolerance
Greater than 8 inches	plus or minus 3/8 inch	minus 3/8 inch
Less than 8 inches	plus or minus 1/2 inch	minus 1/2 inch

C. Install reinforcement within the tolerances specified in ACI 530.1 for foundation walls.

3.3 FIELD QUALITY CONTROL

A. Section 014000 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

B. Field inspection and testing will be performed by Owner's testing laboratory in accordance with ACI 318 and IBC 2006.

C. Provide free access to Work and cooperate with appointed firm.

D. Reinforcement Inspection:
1. Placement Acceptance: Specified and ACI 318 material requirements and specified placement tolerances.
2. Welding: Inspect welds in accordance with AWS D1.1.
3. Periodic Placement Inspection: Inspect for correct materials, fabrication, sizes, locations, spacing, concrete cover, and splicing.
4. Weldability Inspection: Inspect for reinforcement weldability when formed from steel other than ASTM A706/A706M.
5. Continuous Weld Inspection: Inspect reinforcement as required by ACI 318.
6. Periodic Weld Inspection: Other welded connections.

3.4 SCHEDULES

A. Reinforcement For Superstructure Framing Members: Deformed bars, unfinished.

B. Reinforcement For Foundation Wall Framing Members and Slab-on-Grade:Deformed bars and wire fabric, galvanized finish.

C. Reinforcement For Parking Structure Framing Members: Deformed bars, epoxy-coated finish.

END OF SECTION

SECTION 03 30 00

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 SUMMARY

A. Section includes cast-in-place concrete for the following:
   1. Foundation walls.
   2. Supported slabs.
   3. Slabs on grade.
   4. Control, expansion and contraction joint devices.
   5. Equipment pads.
   6. Light pole base.
   7. Flagpole base.

B. Related Sections:
   1. Section 031000 - Concrete Forms and Accessories: Formwork and accessories. Placement of joint device joint device anchors in formwork.
   2. Section 032000 - Concrete Reinforcement.
   3. Section 033500 - Concrete Finishing.
   4. Section 033900 - Concrete Curing.

1.2 REFERENCES

A. American Concrete Institute:
   1. ACI 301 - Specifications for Structural Concrete.
   2. ACI 305 - Hot Weather Concreting.
   3. ACI 306.1 - Standard Specification for Cold Weather Concreting.
   4. ACI 308.1 - Standard Specification for Curing Concrete.
   5. ACI 318 - Building Code Requirements for Structural Concrete.

B. ASTM International:
   1. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
   2. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
   3. ASTM C33 - Standard Specification for Concrete Aggregates.
   4. ASTM C39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
   5. ASTM C42/C42M - Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
   6. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
   7. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic Cement Concrete.

8. ASTM C150 - Standard Specification for Portland Cement.
9. ASTM C172 - Standard Practice for Sampling Freshly Mixed Concrete.
10. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
11. ASTM C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
12. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
13. ASTM C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.
14. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
15. ASTM C595 - Standard Specification for Blended Hydraulic Cements.
16. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete.
17. ASTM C685/C685M - Standard Specification for Concrete Made By Volumetric Batching and Continuous Mixing.
18. ASTM C845 - Standard Specification for Expansive Hydraulic Cement.
19. ASTM C989 - Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars.
20. ASTM C1017/C1017M - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
21. ASTM C1064/C1064M - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
22. ASTM C1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
23. ASTM C1116 - Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
24. ASTM C1157 - Standard Performance Specification for Hydraulic Cement.
25. ASTM C1218 - Standard Test Method for Water-Soluble Chloride in Mortar and Concrete.
26. ASTM C1240 - Standard Specification for Silica Fume Used in Cementitious Mixtures.
27. ASTM D994 - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
28. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
29. ASTM D1752 - Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
30. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
31. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
32. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

33. ASTM E1643 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs.
34. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.

1.3 PERFORMANCE REQUIREMENTS

A. Vapor Retarder Permeance: Maximum .03 perm when tested in accordance with ASTM E96.

1.4 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit data on joint devices, attachment accessories, admixtures.

C. Design Data:
1. Submit concrete mix design for each concrete strength. Submit separate mix designs when admixtures are required for the following:
   a. Hot and cold weather concrete work.
   b. Air entrained concrete work.
2. Identify mix ingredients and proportions, including admixtures.
3. Identify chloride content of admixtures and whether or not chloride was added during manufacture.

D. Manufacturer's Installation Instructions: Submit installation procedures and interface required with adjacent Work.

1.5 CLOSEOUT SUBMITTALS

A. Section 017000 - Execution Requirements: Closeout procedures.

B. Project Record Documents: Accurately record actual locations of embedded utilities and components concealed from view in finished construction.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 301 and ACI 318.

B. Conform to ACI 305 when concreting during hot weather.

C. Conform to ACI 306.1 when concreting during cold weather.

D. Acquire cement and aggregate from one source for Work.

1.7 COORDINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Coordinate placement of joint devices with erection of concrete formwork and placement of form accessories.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Section 016000 - Product Requirements: Environmental conditions affecting products on site.

B. Maintain concrete temperature after installation at minimum 50 degrees F for minimum 7 days.

1.9 COORDINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Coordinate placement of joint devices with erection of concrete formwork and placement of form accessories.

PART 2 PRODUCTS

2.1 CONCRETE MATERIALS

A. Cement: ASTM C150, Type I - Normal

B. Normal Weight Aggregates: ASTM C33.
1. Coarse Aggregate Maximum Size: 1.5

C. Water: ACI 318; potable, without deleterious amounts of chloride ions.

2.2 ADMIXTURES

A. Air Entrainment: ASTM C260.

B. Fly Ash: ASTM C618 type C or F.

C. Silica Fume: ASTM C1240.

2.3 ACCESSORIES

A. Vapor Retarder: ASTM E1745 Class A; 10 mil thick; type recommended for below grade application. Furnish joint tape recommended by manufacturer.

B. Non-Shrink Grout: ASTM C1107, premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 2,400 psi in 48 hours and 7,000 psi in 28 days.

2.4 JOINT DEVICES AND FILLER MATERIALS

A. Joint Filler; Asphalt impregnated fiberboard or felt, tongue and groove profile.

****** OR ******

B. Joint Filler: ASTM D1752; Closed cell, resiliency of 95 percent if not compressed more than 50 percent of original thickness.

C. Sealant: ASTM C309, Type I approved by Asphalt and Vinyl composition Tile Institute, 30% minimum solids content.

2.5 CONCRETE MIX

A. Select proportions for normal weight concrete in accordance with ACI 301 Method 1

B. Provide concrete for the following criteria:

Material and Property	Measurement
Compressive Strength (7 day)	2100 psi
Compressive Strength (28 day)	3000 psi
Cement Type	ASTM C150
Aggregate Size (maximum)	1.5 inch
Air Content	Do not use air entrainment for concrete mixes.
Slump	5 inches

C. Admixtures: Include admixture types and quantities indicated in concrete mix designs only when approved by Architect/Engineer.
   1. Use accelerating admixtures in cold weather. Use of admixtures will not relax cold weather placement requirements.
   2. Do not use calcium chloride nor admixtures containing calcium chloride.

3. Use set retarding admixtures during hot weather.

D. Site Mixed Concrete: No site mixed concrete is allowed.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Verify requirements for concrete cover over reinforcement.

C. Verify anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with placing concrete.

3.2 PREPARATION

A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent. Remove laitance, coatings, and unsound materials.

B. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.

C. Remove debris and ice from formwork, reinforcement, and concrete substrates.

D. Remove water from areas receiving concrete before concrete is placed.

3.3 PLACING CONCRETE

A. Place concrete in accordance with ACI 301.

B. Notify testing laboratory and Architect/Engineer minimum 24 hours prior to commencement of operations.

C. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints, and are not disturbed during concrete placement.

D. Install vapor retarder under interior slabs on grade in accordance with ASTM E1643. Lap joints minimum 6 inches and seal watertight by adhesive applied between overlapping edges and ends as per manufacturer recommendations.

E. Repair vapor retarder damaged during placement of concrete reinforcing. Repair with vapor retarder material; lap over damaged areas minimum 6 inches and seal watertight.

F. Install construction joint devices in coordination with floor slab pattern placement sequence. Set top to required elevations. Secure to resist movement by wet concrete.

G. Install joint device anchors. Maintain correct position to allow joint cover to be flush with floor finish.

H. Install joint covers in one piece longest practical length, when adjacent construction activity is complete.

I. Deposit concrete at final position. Prevent segregation of mix.

J. Place concrete in continuous operation for each panel or section determined by predetermined joints.

K. Consolidate concrete.

L. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.

M. Place concrete continuously between predetermined expansion, control, and construction joints.

N. Do not interrupt successive placement; do not permit cold joints to occur.

O. Saw cut joints within 12 hours after placing. Use 3/16 inch thick blade, cut into 1/4 depth of slab thickness.

P. Screed floors and slabs on grade level, maintaining surface flatness of F_f of 35.

3.4 CONCRETE FINISHING

A. Finish concrete floor surfaces to requirements of Section 03350.

B. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains.

3.5 CURING AND PROTECTION

A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
   1. Protect concrete footings from freezing for minimum 5 days.

B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

C. Cure floor surfaces as specified in Section 03390.

D. Ponding: Maintain 100 percent coverage of water over floor slab areas continuously for 7 days.

E. Spraying: Spray water over floor slab areas and maintain wet for 7 days.

3.6 FIELD QUALITY CONTROL

A. Section 014000 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

B. Field inspection and testing will be performed by Owner's testing laboratory in accordance with ACI 318

C. Provide free access to Work and cooperate with appointed firm.

D. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of Work.

E. Concrete Inspections:
1. Continuous Placement Inspection: Inspect for proper installation procedures.
2. Periodic Curing Inspection: Inspect for specified curing temperature and procedures.

F. Strength Test Samples:
1. Sampling Procedures: ASTM C172.
2. Cylinder Molding and Curing Procedures: ASTM C31/C31M, cylinder specimens, standard cured field cured.
3. Sample concrete and make one set of three cylinders for every 150 cu yds or less of each class of concrete placed each day and for every 5,000 sf of surface area for slabs and walls.
4. When volume of concrete for any class of concrete would provide less than 3 sets of cylinders, take samples from three randomly selected batches, or from every batch when less than 3 batches are used.
5. Make one additional cylinder during cold weather concreting, and field cure.

G. Field Testing:
1. Slump Test Method: ASTM C143/C143M.
2. Air Content Test Method: ASTM C173/C173M.
3. Temperature Test Method: ASTM C1064/C1064M.
4. Measure slump and temperature for each compressive strength concrete sample.
5. Measure air content in air entrained concrete for each compressive strength concrete sample.

H. Cylinder Compressive Strength Testing:
1. Test Method: ASTM C39.
2. Test Acceptance: In accordance with ACI 318 .
3. Test one cylinder at 7 days.
4. Test two cylinders at 28 days.
5. Dispose remaining cylinders when testing is not required.

I. Core Compressive Strength Testing:
   1. Sampling and Testing Procedures: ASTM C42/C42M.
   2. Test Acceptance: In accordance with ACI 318.
   3. Drill three cores for each failed strength test from concrete represented by failed strength test.

J. Water Soluble Chloride Ion Concentration Test Method: ASTM C1218; tested at 28 days.
   1. Maximum Concentration: As permitted by applicable code.

K. Maintain records of concrete placement. Record date, location, quantity, air temperature and test samples taken.

3.7 PATCHING

A. Allow Architect/Engineer to inspect concrete surfaces immediately upon removal of forms.

B. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Architect/Engineer upon discovery.

C. Patch imperfections as directed by Architect/Engineer

3.8 DEFECTIVE CONCRETE

A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.

B. Repair or replacement of defective concrete will be determined by Architect/Engineer.

C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect/Engineer for each individual area.

3.9 SCHEDULE - CONCRETE TYPES AND FINISHES

A. Foundation Walls: 3,000 psi 28 day concrete, form finish with honeycomb filled surface.

B. Underside of Supported Floors and Structure Exposed to View: 4,000 psi 28 day concrete, sack rubbed finish.

C. Exposed Portico Structure: 4,000 psi 28 day concrete, air entrained, smooth stone rubbed finish.

3.10 SCHEDULE - JOINT FILLERS

A. Basement Floor Slab Perimeter:Joint filler Type A set 1/8 inch below floor slab elevation.

B. Exterior Retaining Wall at Loading Dock: Joint filler Type F recessed 3/8 inch with sealant cover.

END OF SECTION

SECTION 03 35 00

CONCRETE FINISHING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Finishing concrete floors [and floor toppings].
   2. Floor surface treatment.

B. Related Sections:
   1. Section 033000 - Cast-in-Place Concrete: [Prepared concrete floors ready to receive finish;] [control and formed expansion and contraction joints and joint devices].
   2. Section 03360 - Concrete Finishes: Exposed aggregate finish.
   3. Section 033900 - Concrete Curing.
   4. Section 079513 - Expansion Joint Cover Assemblies.
   5. Section 079200 - Joint Sealers.

1.2 REFERENCES

A. American Concrete Institute:
   1. ACI 301 - Specifications for Structural Concrete.
   2. ACI 302.1 - Guide for Concrete Floor and Slab Construction.

B. ASTM International:
   1. ASTM E1155 - Standard Test Method for Determining Floor Flatness and of Levelness Using the F-number System.

1.3 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit data on concrete hardener, sealer, curing compounds curing papers and slip resistant treatment, compatibilities, and limitations.

1.4 CLOSEOUT SUBMITTALS

A. Section 017000 - Execution Requirements: Closeout procedures.

B. Operation and Maintenance Data: Submit data on maintenance renewal of applied coatings.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 301 and ACI 302.1.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Section 016000 - Product Requirements: Product storage and handling requirements.

B. Deliver materials in manufacturer's packaging including application instructions.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Section 016000 - Product Requirements: Environmental conditions affecting products on site.

1.8 COMPOUNDS - HARDENERS AND SEALERS

A. Chemical Hardener: Magnesium fluorosilicate and zinc fluorosilicate blend

PART 2 EXECUTION

2.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Verify floor surfaces are acceptable to receive the Work of this section.

2.2 FLOOR FINISHING

A. Finish concrete floor surfaces in accordance with ACI 301 and ACI 302.1.

B. Wood float surfaces receiving quarry tile, ceramic tile, and cementitious terrazzo with full bed setting system.

C. Steel trowel surfaces receiving carpeting, resilient flooring, seamless flooring, thin set terrazzo, thin set quarry tile, and thin set ceramic tile.

D. Steel trowel surfaces which are scheduled to be exposed.

2.3 TOLERANCES

A. Section 014000 - Quality Requirements: Tolerances.

B. Measure for F(F) and F(L) tolerances for floors in accordance with ASTM E1155, within 48 hours after slab installation.

C. Finish concrete to achieve the following tolerances:

1. Under Glazed Tile on Setting Bed: F(F) 35 and F(L) 20.
2. Under Resilient Finishes: F(F) 75 and F(L) 50.
3. Exposed to View and Foot Traffic: F(F) 75 and F(L) 40.
4. Correct slab surface when actual F(F) or F(L) number for floor installation measures less than required.

D. Correct defects in defined traffic floor by grinding or removal and replacement of defective Work. Areas requiring corrective Work will be identified. Re-measure corrected areas by same process.

END OF SECTION

SECTION 03 39 00

CONCRETE CURING

PART 1 GENERAL

1.1 SUMMARY

A. Section includes initial and final curing of horizontal and vertical concrete surfaces.

B. Related Sections:
1. Section 033000 - Cast-In-Place Concrete.
2. Section 033500 - Concrete Finishing.

1.2 REFERENCES

A. American Concrete Institute:
1. ACI 301 - Specifications for Structural Concrete.
2. ACI 302.1 - Guide for Concrete Floor and Slab Construction.
3. ACI 308.1 - Standard Specification for Curing Concrete.
4. ACI 318 - Building Code Requirements for Structural Concrete.

B. ASTM International:
1. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete.
2. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
3. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
4. ASTM D2103 - Standard Specification for Polyethylene Film and Sheeting.

1.3 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit data on curing compounds, mats, paper, film, compatibilities, and limitations.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 301.

PART 2 PRODUCTS

2.1 MATERIALS

A. Membrane Curing Compound Type 1.

B. Membrane Curing Compound: ASTM C1315 Type I.

C. Water: Potable, not detrimental to concrete.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Verify substrate surfaces are ready to be cured.

3.2 INSTALLATION - HORIZONTAL SURFACES

A. Cure concrete in accordance with ACI 308.1.

B. Ponding: Maintain 100 percent coverage of water over floor slab areas, continuously for 4 days.

****** [OR] ******

C. Spraying: Spray water over floor slab areas and maintain wet for 7 days.

****** [OR] ******

D. Absorptive Mat: Spread cotton fabric over floor slab areas. Spray with water until mats are saturated, and maintain in saturated condition for 7 days.

****** [OR] ******

E. Absorptive Mat: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides; maintain in place for 7 days.

3.3 PROTECTION OF FINISHED WORK

A. Section 017000 - Execution Requirements: Protecting finished Work.

B. Do not permit traffic over unprotected floor surface.

3.4 SCHEDULES

A. Storage Area Slabs: Absorptive mats, burlap-polyethylene type.

B. Retaining Walls: Membrane curing compound, acrylic type, clear color.

C. Concrete Pavement: Membrane curing compound, opaque color.

D. Other Floor Areas: Membrane curing compound, acrylic type, translucent color.

END OF SECTION

SECTION 03 60 00

GROUT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Portland cement grout.
   2. Rapid curing epoxy grout.
   3. Non-shrink cementitious grout.

B. Related Sections:
   1. Section 033000 - Cast-in-Place Concrete.

1.2 REFERENCES

A. American Concrete Institute:
   1. ACI 301 - Specifications for Structural Concrete.
   2. ACI 318 - Building Code Requirements for Structural Concrete.

B. American Society of Testing and Materials:
   1. ASTM C33 - Standard Specification for Concrete Aggregates.
   2. ASTM C40 - Test Method for Organic Impurities in Fine Aggregates for Concrete.
   3. ASTM C150 - Standard Specification for Portland Cement.
   4. ASTM C191 - Test Method for Time of Setting of Hydraulic Cement by Vicat Needle.
   5. ASTM C307 - Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacings.
   6. ASTM C531 - Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.
   7. ASTM C579 - Test Method for Compressive Strength of Chemical-Resistant Mortars, Grouts, monolithic Surfacings and Polymer Concretes.
   8. ASTM C827 - Test Method for Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures.

C. U. S. Army Corps of Engineers Concrete Research Division (CRD):
   1. CRD C621 - Non-Shrink Grout.

PART 2 PRODUCTS

2.1 PORTLAND CEMENT GROUT MATERIALS

A. Portland Cement: ASTM C150, Type I and II.

B. Water:
1. Potable; containing no impurities, suspended particles, algae or dissolved natural salts in quantities capable of causing:
   a. Corrosion of steel.
   b. Volume change increasing shrinkage cracking.
   c. Efflorescence.
   d. Excess air entraining.

C. Fine Aggregate:
1. Washed natural sand.
2. Gradation in accordance with ASTM C33 and represented by smooth granulometric curve within required limits.
3. Free from injurious amounts of organic impurities as determined by ASTM C40.

D. Mix:
1. Portland cement, sand and water. Do not use ferrous aggregate or staining ingredients in grout mixes.

2.2 RAPID CURING EPOXY GROUT

A. Rapid Curing Epoxy Grout: High strength, three component epoxy grout formulated with thermosetting resins and inert fillers. Rapid-curing, high adhesion, and resistant to ordinary chemicals, acids and alkalies.

Compressive Strength	ASTM C579	12,000 psi at 7 days
Tensile Strength	ASTM C307	2,000 psi minimum
Coefficient of Expansion	ASTM C531	30x10-6 in per degree F
Shrinkage	ASTM C827	None

2.3 NON-SHRINK CEMENTITIOUS GROUT

A. Properties: Certified to maintain initial placement volume or expand after set and meet the following minimum properties when tested in accordance with CRD-C621, for Type D non-shrink grout:

Property	Test	Time	Result
Setting Time	ASTM C191	Initial	2 hours (Approx)
		Final	3 hours (Approx)
Expansion			0.10% - 0.4% Maximum

Compressive Strength	CRD-C621	1 day	4,000 psi
		7 days	7,000 psi
		28 days	10,000 psi to 10,800 psi

2.4 FORMWORK

A. Refer to Section 031000 for formwork requirements.

2.5 CURING

A. Prevent rapid loss of water from grout during first 48 hours by use of approved membrane curing compound or with use of wet burlap method.

PART 3 EXECUTION

3.1 PREPARATION

A. Remove defective concrete, laitance, dirt, oil, grease and other foreign material from concrete surfaces by brushing, hammering, chipping or other similar means until sound, clean concrete surface is achieved.

B. Rough concrete lightly, but not enough to interfere with placement of grout.

C. Remove foreign materials from metal surfaces in contact with grout.

D. Align, level and maintain final positioning of components to be grouted.

E. Saturate concrete surfaces with clean water; remove excess water, leave none standing.

3.2 MIXING

A. Portland Cement Grout:
1. Use proportions of 2 parts sand and 1 part cement, measured by volume.
2. Prepare grout with water to obtain consistency to permit placing and packing.
3. Mix water and grout in two steps; pre-mix using approximately 2/3 of water;after partial mixing, add remaining water to bring mix to desired placement consistency and continue mixing 2 to 3 minutes.
4. Mix only quantities of grout capable of being placed within 30 minutes after mixing.
5. Do not add additional water after grout has been mixed.
6. Capable of developing minimum compressive strength of 2400 psi in 48 hours and 7000 psi in 28 days.

****** [OR] ******

3.3 PLACING GROUT

A. Place grout material quickly and continuously.

B. Do not use pneumatic-pressure or dry-packing methods.

C. Apply grout from one side only to avoid entrapping air.

D. Do not vibrate placed grout mixture, or permit placement when area is being vibrated by nearby equipment.

E. Thoroughly compact final installation and eliminate air pockets.

F. Do not remove leveling shims for at least 48 hours after grout has been placed.

3.4 CURING

A. Immediately after placement, protect grout from premature drying, excessively hot or cold temperatures, and mechanical injury.

B. After grout has attained its initial set, keep damp for minimum of 3 days.

3.5 FIELD QUALITY CONTROL

A. Submit proposed mix design of each class of grout to inspection and testing firm for review prior to commencement of Work.

B. Tests of grout components may be performed to ensure conformance with specified requirements.

END OF SECTION

SECTION 04 05 14

MASONRY MORTAR AND GROUT

PART 1 GENERAL

1.1 SUMMARY

A. Section includes mortar and grout for masonry.

B. Related Sections:
1. Section 042000 - Unit Masonry Assemblies: Installation of mortar and grout.
2. Section 042016 - Reinforced Unit Masonry Assemblies: Installation of mortar and grout.

1.2 REFERENCES

A. American Concrete Institute:
1. ACI 530 - Building Code Requirements for Masonry Structures.
2. ACI 530.1 - Specifications for Masonry Structures.

B. ASTM International:
1. ASTM C5 - Standard Specification for Quicklime for Structural Purposes.
2. ASTM C91 - Standard Specification for Masonry Cement.
3. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
4. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic Cement Concrete.
5. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar.
6. ASTM C150 - Standard Specification for Portland Cement.
7. ASTM C199 - Standard Test Method for Pier Test for Refractory Mortars.
8. ASTM C206 - Standard Specification for Finishing Hydrated Lime.
9. ASTM C270 - Standard Specification for Mortar for Unit Masonry.
10. ASTM C387 - Standard Specification for Packaged, Dry, Combined Materials for Mortar and Concrete.
11. ASTM C404 - Standard Specification for Aggregates for Masonry Grout.
12. ASTM C476 - Standard Specification for Grout for Masonry.
13. ASTM C595 - Standard Specification for Blended Hydraulic Cements.
14. ASTM C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.
15. ASTM C1019 - Standard Test Method for Sampling and Testing Grout.
16. ASTM C1142 - Standard Specification for Extended Life Mortar for Unit Masonry.
17. ASTM C1314 - Standard Test Method for Constructing and Testing Masonry Prisms Used to Determine Compliance with Specified Compressive Strength of Masonry.
18. ASTM C1329 - Standard Specification for Mortar Cement.

19. ASTM C1357 - Standard Test Method for Evaluating Masonry Bond Strength.

1.3 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal requirements.

B. Design Data: Submit design mix when Property specification of ASTM C270 is to be used, required environmental conditions, and admixture limitations.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 530 and ACI 530.1.

1.5 ENVIRONMENTAL REQUIREMENTS

A. Section 016000 - Product Requirements.

B. Cold Weather Requirements: In accordance with ACI 530.1 when ambient temperature or temperature of masonry units is less than 40 degrees F.

C. Hot Weather Requirements: In accordance with ACI 530.1 when ambient temperature is greater than 100 degrees F or ambient temperature is greater than 90 degrees F with wind velocity greater than 8 mph.

PART 2 PRODUCTS

2.1 COMPONENTS

A. Portland Cement: ASTM C150, Type I

B. Calcium chloride is not permitted.

2.2 MIXES

A. Mortar Mixes:
1. Extended Life Mortar: ASTM C1142, Type RS

B. Mortar Mixing:
1. Thoroughly mix mortar ingredients in accordance with ASTM C270 in quantities needed for immediate use.
2. Achieve uniformly damp sand immediately before mixing process.
3. Re-temper only within two hours of mixing.

C. Grout Mixes:

1. Grout for Non-Structural Masonry: 3,000 psi strength at 28 days; 8-11 inches slump; mixed in accordance with ASTM C476 grout.
2. Grout for Structural Masonry: 3,000 psi strength at 28 days; 8-11 inches slump; mixed in accordance with ASTM C476 grout.
3. Application:
   a. Coarse Grout: For grouting spaces with minimum 4 inches dimension in every direction.
   b. Fine Grout: For grouting other spaces.

D. Grout Mixing:
1. Mix grout in accordance with ASTM C94/C94M, modified to use ingredients complying with ASTM C476.
2. Add admixtures; mix uniformly.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Request inspection of spaces to be grouted.

3.2 INSTALLATION

A. Install mortar and grout in accordance with ACI 530.1 Specifications for Masonry Structures.

3.3 FIELD QUALITY CONTROL

A. Establishing Mortar Mix: In accordance with ASTM C270.

B. Testing Frequency: One set of specified tests for every 5,000 sf of completed wall area.

C. Testing of Mortar Mix: In accordance with ASTM C780 for aggregate ratio and water content, air content, consistency, and compressive strength.

D. Testing of Grout Mix: In accordance with ASTM C1019 for compressive strength, and in accordance with ASTM C143/C143M for slump.

E. Test compressive strength of mortar and masonry to ASTM C1314; test in accordance with masonry unit sections specified.

END OF SECTION

SECTION 04 20 16

REINFORCED UNIT MASONRY ASSEMBLIES

PART 1 GENERAL

1.1 SUMMARY

A. Section includes concrete masonry units, reinforcement, anchorage, and accessories.

B. Related Sections:
1. Section 040514 - Masonry Mortar and Grout: Mortar and grout.

1.2 REFERENCES

A. American Concrete Institute:
1. ACI 530 - Building Code Requirements for Masonry Structures.
2. ACI 530.1 - Specifications for Masonry Structures.

B. ASTM International:
1. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
2. ASTM A240/A240M - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
3. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
4. ASTM A580/A580M - Standard Specification for Stainless Steel Wire.
5. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
6. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
7. ASTM A951 - Standard Specification for Masonry Joint Reinforcement.
8. ASTM B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
9. ASTM B695 - Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
10. ASTM C27 - Standard Classification of Fireclay and High-Alumina Refractory Brick.
11. ASTM C34 - Standard Specification for Structural Clay Load-Bearing Wall Tile.
12. ASTM C55 - Standard Specification for Concrete Brick.
13. ASTM C56 - Standard Specification for Structural Clay Non-Load-Bearing Tile.
14. ASTM C62 - Standard Specification for Building Brick (Solid Masonry Units Made From Clay or Shale).
15. ASTM C67 - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.

16. ASTM C73 - Standard Specification for Calcium Silicate Face Brick (Sand-Lime Brick).
17. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units.
18. ASTM C126 - Standard Specification for Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units.
19. ASTM C129 - Standard Specification for Nonloadbearing Concrete Masonry Units.
20. ASTM C140 - Standard Test Methods of Sampling and Testing Concrete Masonry Units.
21. ASTM C212 - Standard Specification for Structural Clay Facing Tile.
22. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale).
23. ASTM C315 - Standard Specification for Clay Flue Linings.
24. ASTM C530 - Standard Specification for Structural Clay Non-Loadbearing Screen Tile.
25. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
26. ASTM C652 - Standard Specification for Hollow Brick (Hollow Masonry Units Made From Clay or Shale).
27. ASTM C744 - Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units.
28. ASTM C1261 - Standard Specification for Firebox Brick for Residential Fireplaces.
29. ASTM C1283 - Standard Practice for Installing Clay Flue Lining.
30. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
31. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
32. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

C. National Fire Protection Association:
   1. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials.

D. Underwriters Laboratories Inc.:
   1. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.3 PERFORMANCE REQUIREMENTS

A. Concrete Masonry Compressive Strength
   1. Concrete Masonry Units: 1900 psi minimum net area compressive strength.

1.4 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal requirements.

B. Shop Drawings: Indicate bars sizes, spacings, locations, reinforcement quantities, bending and cutting schedules, supporting and spacing devices for reinforcement.

C. Product Data:
1. Submit data for masonry units and fabricated wire reinforcement.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 530 and ACI 530.1.

1.6 QUALIFICATIONS

A. Installer: Company specializing in performing Work of this section with minimum three years experience.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Section 016000 - Product Requirements.

B. Cold Weather Requirements: In accordance with ACI 530.1 when ambient temperature or temperature of masonry units is less than 40 degrees F.

C. Hot Weather Requirements: In accordance with ACI 530.1 when ambient temperature is greater than 100 degrees F or ambient temperature is greater than 90 degrees F with wind velocity greater than 8 mph.

PART 2 PRODUCTS

2.1 COMPONENTS

A. Hollow Load Bearing Concrete Masonry Units (CMU): ASTM C90; normal weight.

2.2 ACCESSORIES

A. Single Wythe Joint Reinforcement: ASTM A951; ladder type; 0.148 inch diameter side rods with 0.148 inch diameter cross ties.

B. Reinforcing Steel: ASTM A615/A615M, 60 ksi yield grade, deformed billet bars.

C. Anchor Rods: ASTM A307; Grade C; J-shaped or L-shaped; complete with washers and heavy hex nuts; sized for minimum 15 inch embedment.
1. Hot-Dipped Galvanizing: ASTM A153/A153M.
2. Mechanical Galvanizing: ASTM B695; Class 55.

D. Mortar and Grout: As specified in Section 04065.

E. Joint Filler: Closed cell rubber; oversized 50 percent to joint width; self expanding.

2.3 SOURCE QUALITY CONTROL

A. Section 014000 - Quality Requirements: Testing, inspection and analysis requirements.

B. Test brick efflorescence in accordance with ASTM C67. Brick rated greater than "slightly effloresced" is not acceptable.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Verify field conditions are acceptable and are ready to receive work.

C. Verify items provided by other sections of work are properly sized and located.

D. Verify built-in items are in proper location, and ready for roughing into masonry work.

3.2 PREPARATION

A. Direct and coordinate placement of metal anchors supplied to other Sections.

B. Furnish temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent support.

C. Wet clay and shale brick before laying when initial rate of absorption is greater than 30 grams when tested in accordance with ASTM C67.

3.3 INSTALLATION

A. Establish lines, levels, and coursing indicated. Protect from displacement.

B. Maintain masonry courses to uniform dimension. Form bed and head joints of uniform thickness.

C. Coursing of Concrete Masonry Units:
1. Bond: Running.
2. Coursing: One unit and one mortar joint to equal 8 inches.
3. Mortar Joints: Concave.

D. Placing And Bonding:
1. Lay solid masonry units in full bed of mortar, with full head joints.
2. Lay hollow masonry units with face shell bedding on head and bed joints.

3. Buttering corners of joints or excessive furrowing of mortar joints are not permitted.
4. Remove excess mortar as Work progresses.
5. Interlock intersections and external corners.
6. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment is required, remove mortar and replace.
7. Perform job site cutting of masonry units with proper tools to assure straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
8. Isolate masonry from vertical structural framing members with movement joint .
9. Isolate top of masonry from horizontal structural framing members and slabs or decks.

E. Joint Reinforcement And Anchorage:
1. Install horizontal joint reinforcement 16 inches oc.
2. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.
3. Place joint reinforcement continuous in first and second joint below top of walls.
4. Lap joint reinforcement ends minimum 6 inches.
5. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.
6. Embed anchors embedded in concrete attached to structural steel members. Embed anchorages in every sixth brick.

F. Lintels:
1. Install precast concrete lintels over openings.
2. Install reinforced unit masonry lintels over openings where steel or precast concrete lintels are not scheduled or indicated.
3. Openings Up To 42 inches Wide: Reinforce openings as indicated on Drawings.
4. Openings From 42 inches Up To 78 inches Wide: Reinforce openings as indicated on Drawings.
5. Openings Over 78 inches: Reinforce openings as indicated on Drawings.
6. Do not splice reinforcing bars.
7. Support and secure reinforcing bars from displacement.
8. Place and consolidate grout fill without displacing reinforcing.
9. Allow masonry lintels to attain specified strength before removing temporary supports.
10. Maintain minimum 8 inches bearing on each side of opening.

G. Grouted Components:
1. Reinforce bond beam with 1, No. 5 bar.
2. Reinforce pilaster with 1, No. 6 bar in each cell.
3. Lap splices bar diameters required by code.
4. Support and secure reinforcing bars from displacement.
5. Place and consolidate grout fill without displacing reinforcing.
6. At bearing locations, fill masonry cores with grout for minimum 12 inches either side of opening.

H. Reinforced Masonry:
1. Lay masonry units with cells vertically aligned and cavities between wythes clear of mortar and unobstructed.
2. Place reinforcing, reinforcement bars, and grout as indicated on Drawings.
3. Splice reinforcement in accordance with Section 03200.
4. Support and secure reinforcement from displacement.
5. Place and consolidate grout fill without displacing reinforcing.
6. Place grout in accordance with ACI 530.1 Specification for Masonry Structures.

I. Control And Expansion Joints:
1. Install control and expansion joints at the following maximum spacings, unless otherwise indicated on Drawings:
   a. Exterior Walls: 20 feet on center and within 10 feet on one side of each interior and exterior corner.
   b. Interior Walls: 30 feet on center.
   c. At changes in wall height.
2. Do not continue horizontal joint reinforcement through control and expansion joints.
3. Install preformed control joint device in continuous lengths. Seal butt and corner joints.
4. Size control joint in accordance with Section 07900 for sealant performance.
5. Form expansion joint by omitting mortar and cutting unit to form open space.

J. Cutting And Fitting:
1. Obtain Architect/Engineer's approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.4 ERECTION TOLERANCES

A. Section 014000 - Quality Requirements: Tolerances.

B. Maximum Variation From Alignment of Pilasters: 1/4 inch.

C. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.

D. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.

E. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.

F. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.

G. Maximum Variation of Joint Thickness: 1/8 inch in 3 ft.

H. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

I. Maximum Variation for Steel Reinforcement:
   1. Install reinforcement within the tolerances specified in ACI 530.1 for foundation walls.
   2. Plus or minus 1/2 inch when distance from centerline of steel to opposite face of masonry is 8 inches or less.
   3. Plus or minus 1 inch when distance is between 8 and 24 inches.
   4. Plus or minus 1-1/4 inch when distance is greater than 24 inches.
   5. Plus or minus 2 inches from location along face of wall.

3.5 FIELD QUALITY CONTROL

A. Concrete Masonry Units: Test each type in accordance with ASTM C140.

3.6 CLEANING

A. Section 017000 - Execution Requirements: Final cleaning.

B. Remove excess mortar and mortar smears as work progresses.

C. Replace defective mortar. Match adjacent work.

D. Clean soiled surfaces with cleaning solution.

E. Use non-metallic tools in cleaning operations.

3.7 PROTECTION OF FINISHED WORK

A. Section 017000 - Execution Requirements: Requirements for protecting finished Work.

B. Protect exposed external corners subject to damage.

C. Protect base of walls from mud and mortar splatter.

D. Protect masonry and other items built into masonry walls from mortar droppings and staining caused by mortar.

E. Protect tops of masonry work with waterproof coverings secured in place without damaging masonry. Provide coverings where masonry is exposed to weather when work is not in progress.

END OF SECTION

SECTION 040650

MORTAR AND MASONRY GROUT

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Mortar for masonry.
B. Grout for masonry.

1.02 RELATED REQUIREMENTS

1.03 REFERENCE STANDARDS

A. ASTM C 91 - Standard Specification for Masonry Cement; 2005.
B. ASTM C 94/C 94M - Standard Specification for Ready-Mixed Concrete; 2007.
C. ASTM C 144 - Standard Specification for Aggregate for Masonry Mortar; 2004.
D. ASTM C 270 - Standard Specification for Mortar for Unit Masonry; 2007a.
E. ASTM C 404 - Standard Specification for Aggregates for Masonry Grout; 2007.
F. ASTM C 476 - Standard Specification for Grout for Masonry; 2007.
G. ASTM C 780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry; 2007a.
H. ASTM C 979 - Standard Specification for Pigments for Integrally Colored Concrete; 2005.
I. ASTM C 1019 - Standard Test Method for Sampling and Testing Grout; 2008.
J. ASTM C 1072 - Standard Test Method for Measurement of Masonry Flexural Bond Strength; 2006.
K. ASTM C 1314 - Standard Test Method for Compressive Strength of Masonry Prisms; 2007.
L. ASTM E 518 - Standard Test Methods for Flexural Bond Strength of Masonry; 2003.
M. IMIAWC (CW) - Recommended Practices & Guide Specifications for Cold Weather Masonry Construction; International Masonry Industry All-Weather Council; 1993.
N. IMIAWC (HW) - Recommended Practices & Guide Specifications for Hot Weather Masonry Construction; International Masonry Industry All-Weather Council; current edition.

1.04 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES

1.05 QUALITY ASSURANCE

1.06 FIELD CONDITIONS

A. Cold Weather Requirements: Comply with recommendations of IMIAWC (CW).
B. Hot Weather Requirements: Comply with IMIAWC (HW).

PART 2 - PRODUCTS

2.01 MATERIALS

A. Masonry Cement: ASTM C 91, types as scheduled in this section..
   1. Colored mortar: Premixed cement as selected by Architect.
B. Mortar Aggregate: ASTM C 144.
C. Grout Aggregate: ASTM C 404.
D. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C 979.
E. Water: Clean and potable.

2.02 MORTAR MIXES

A. Mortar for Unit Masonry: ASTM C 270, Property Specification.
   1. Exterior, loadbearing masonry: Type S.
   2. Exterior, non-loadbearing masonry: Type S.
   3. Interior, loadbearing masonry: Type S.
   4. Interior, non-loadbearing masonry: Type N.
   5. Glass unit masonry: Type S.

B. Colored Mortar: Proportion selected pigments and other ingredients as selected by Architect, without exceeding manufacturer's recommended pigment-to-cement ratio.

2.03 MORTAR MIXING

A. Thoroughly mix mortar ingredients using mechanical batch mixer, in accordance with ASTM C 270 and in quantities needed for immediate use.
B. Maintain sand uniformly damp immediately before the mixing process.
C. Add mortar color in accordance with manufacturer's instructions. Provide uniformity of mix and coloration.
D. Do not use anti-freeze compounds to lower the freezing point of mortar.
E. If water is lost by evaporation, re-temper only within two hours of mixing.
F. Use mortar within two hours after mixing at temperatures of 90 degrees F, or two-and-one-half hours at temperatures under 40 degrees F.

2.04 GROUT MIXES

A. Bond Beams and Lintels: 3,000 psi strength at 28 days; 8-10 inches slump; provide premixed type in accordance with ASTM C 94/C 94M.
   1. Fine grout for spaces with smallest horizontal dimension of 2 inches or less.
   2. Coarse grout for spaces with smallest horizontal dimension greater than 2 inches.

2.05 GROUT MIXING

A. Mix grout in accordance with ASTM C 94/C 94M.
B. Thoroughly mix grout ingredients in quantities needed for immediate use in accordance with ASTM C 476 for fine and coarse grout.

2.06 PRECONSTRUCTION TESTING

A. Testing will be conducted by an independent test agency, in accordance with provisions of Section 01400.
B. Mortar Mixes: Test mortars pre-batched by weight in accordance with ASTM C 780 recommendations for preconstruction testing.
   1. Test results will be used to establish optimum mortar proportions and establish quality control values for construction testing.
C. Grout Mixes: Test grout batches in accordance with ASTM C 1019 procedures.
   1. Test results will be used to establish optimum grout proportions and establish quality control values for construction testing.

PART 3 - EXECUTION

3.01 PREPARATION

A. Plug clean-out holes for grouted masonry with brick masonry units. Brace masonry to resist wet grout pressure.

3.02 INSTALLATION

A. Install mortar and grout to requirements of section(s) in which masonry is specified.
B. Work grout into masonry cores and cavities to eliminate voids.
C. Do not install grout in lifts greater than 48 inches without consolidating grout by rodding.
D. Do not displace reinforcement while placing grout.
E. Remove excess mortar from grout spaces.

3.03 GROUTING

A. Perform grouting by means of high-lift technique, except in locations that mandate use of low-lift grouting technique.
B. Low-Lift Grouting:
   1. Limit height of pours to 12 inches.
   2. Limit height of masonry to 16 inches above each pour.
   3. Pour grout only after vertical reinforcing is in place; place horizontal reinforcing as grout is poured. Prevent displacement of bars as grout is poured.
   4. Place grout for each pour continuously and consolidate immediately; do not interrupt pours for more than 1-1/2 hours.
C. High-Lift Grouting:
   1. Verify that horizontal and vertical reinforcement is in proper position and adequately secured before beginning pours.
   2. Hollow Masonry: Limit lifts to maximum 8 feet and pours to maximum height of 8 feet.
   3. Place grout for spanning elements in single, continuous pour.

3.04 FIELD QUALITY CONTROL

A. An independent testing agency will perform field tests, in accordance with provisions of Section 01400.
B. Test and evaluate mortar in accordance with ASTM C 780 procedures.
   1. Test with same frequency as specified for masonry units.
C. Test and evaluate grout in accordance with ASTM C 1019 procedures.
   1. Test with same frequency as specified for masonry units.
D. Prism Tests: Test masonry and mortar panels for compressive strength in accordance with ASTM C 1314, and for flexural bond strength in accordance with ASTM C 1072 or ASTM E 518; perform tests and evaluate results as specified in individual masonry sections.

END OF SECTION

SECTION 05 12 00

STRUCTURAL STEEL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Structural shapes.
2. Channels and angles.
3. Hollow structural sections.
4. Structural pipe.
5. Structural plates and bars.
6. Fasteners, connectors, and anchors.
7. Fasteners, connectors, and anchors.
8. Grout.

B. Related Sections:
1. Section 036000 - Grout: Grout for setting base plates.
2. Section 052100 - Steel Joists.
3. Section 053123 - Steel Roof Deck
4. Section 055000 – Metal Fabrications: Steel Fabrications affecting structural steel work.

1.2 REFERENCES

A. American Institute of Steel Construction:
1. AISC Code of Standard Practice for Steel Buildings and Bridges.
2. AISC Load and Resistance Factor Design (LRFD) Specification for Structural Steel Buildings.
3. AISC Load and Resistance Factor Design Specification for Single-Angle Members.
4. AISC Seismic Provisions for Structural Steel Buildings.
5. AISC Specification for Allowable Stress Design of Single-Angle Members.
6. AISC Specification for the Design of Steel Hollow Structural Sections.
7. AISC Specification for Structural Steel Buildings Allowable Stress Design, and Plastic Design.

B. ASTM International:
1. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
2. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
3. ASTM A108 - Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.

4. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
5. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
6. ASTM A193/A193M - Standard Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service.
7. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
8. ASTM A325 - Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
9. ASTM A354 - Standard Specification for Quenched and Tempered Alloy Steel Bolts, Studs, and Other Externally Threaded Fasteners.
10. ASTM A449 - Standard Specification for Quenched and Tempered Steel Bolts and Studs.
11. ASTM A490 - Standard Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Tensile Strength.
12. ASTM A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
13. ASTM A501 - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
14. ASTM A514/A514M - Standard Specification for High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding.
15. ASTM A529/A529M - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality.
16. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts.
17. ASTM A572/A572M - Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
18. ASTM A588/A588M - Standard Specification for High-Strength Low-Alloy Structural Steel with 50 ksi (345 MPa) Minimum Yield Point to 4-in. (100-mm) Thick.
19. ASTM A618 - Standard Specification for Hot-Formed Welded and Seamless High-Strength Low-Alloy Structural Tubing.
20. ASTM A786/A786M - Standard Specification for Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates.
21. ASTM A847 - Standard Specification for Cold-Formed Welded and Seamless High Strength, Low Alloy Structural Tubing with Improved Atmospheric Corrosion Resistance.
22. ASTM A852/A852M - Standard Specification for Quenched and Tempered Low-Alloy Structural Steel Plate with 70 ksi (485 MPa) Minimum Yield Strength to 4 in. (100 mm) Thick.
23. ASTM A913/A913M - Standard Specification for High-Strength Low-Alloy Steel Shapes of Structural Quality, Produced by Quenching and Self-Tempering Process (QST).
24. ASTM A992/A992M - Standard Specification for Structural Steel Shapes.
25. ASTM B695 - Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.

26. ASTM E94 - Standard Guide for Radiographic Examination.
27. ASTM E164 - Standard Practice for Ultrasonic Contact Examination of Weldments.
28. ASTM E165 - Standard Test Method for Liquid Penetrant Examination.
29. ASTM E709 - Standard Guide for Magnetic Particle Examination.
30. ASTM F436 - Standard Specification for Hardened Steel Washers.
31. ASTM F959 - Standard Specification for Compressible-Washer-Type Direct Tension Indicators for Use with Structural Fasteners.
32. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.
33. ASTM F1852 - Standard Specification for Twist Off Type Tension Control Structural Bolt/Nut/Washer Assemblies, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.

C. American Welding Society:
1. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination.
2. AWS D1.1 - Structural Welding Code - Steel.

D. Research Council on Structural Connections:
1. RCSC - Specification for Structural Joints Using ASTM A325 or A490 Bolts.

E. SSPC: The Society for Protective Coatings:
1. SSPC - Steel Structures Painting Manual.
2. SSPC Paint 15 - Steel Joist Shop Paint.
3. SSPC Paint 20 - Zinc-Rich Primers (Type I - Inorganic and Type II - Organic).
4. SSPC SP 3 - Power Tool Cleaning.
5. SSPC SP 6 - Commercial Blast Cleaning.
6. SSPC SP 10 - Near-White Blast Cleaning.

1.3 SUBMITTALS

A. Section 01330 - Submittal Procedures: Requirements for submittals.

B. Shop Drawings:
1. Indicate profiles, sizes, spacing, and locations of structural members, openings, attachments, and fasteners.
2. Connections.
3. Cambers
4. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.

C. Mill Test Reports: Submit indicating structural strength and destructive and non-destructive test analysis.

D. Manufacturer’s Mill Certificate: Certify products meet or exceed specified requirements.

E. Welders Certificates: Certify welders employed on the Work, verifying AWS qualifications within previous 12 months.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with the following:
1. AISC Code of Standard Practice for Steel Buildings and Bridges.
2. AISC Code of Standard Practice for Steel Buildings and Bridges. Section 10.
3. AISC Seismic Provisions for Structural Steel Buildings.
4. AISC Specification for Structural Steel Buildings Allowable Stress Design, and Plastic Design.
5. AISC Load and Resistance Factor Design (LRFD) Specification for Structural Steel Buildings.
6. AISC Specification for the Design of Steel Hollow Structural Sections.
7. AISC Specification for Allowable Stress Design of Single-Angle Members.
8. AISC Load and Resistance Factor Design Specification for Single-Angle Members.
9. RCSC Specification for Structural Joints Using ASTM A 325 or A 490 Bolts.
10. ASCE 19.

1.5 COORDINATION

A. Section {013000 - Administrative Requirements}: Requirements for coordination.

PART 2 PRODUCTS

2.1 STRUCTURAL STEEL

A. Structural W-Shapes: ASTM A992/A992M; Grade 50

B. Structural M-Shapes: ASTM A36/A36M; Grade 50

C. Structural T-Shapes: Cut from structural W-shapes.

D. Channels and Angles: ASTM A36/A36M.

E. Round Hollow Structural Sections: ASTM A500, Grade B.

F. Square and Rectangular Hollow Structural Sections: ASTM A500, Grade B.

G. Structural Plates and Bars: ASTM A36/A36M.

2.2 FASTENERS, CONNECTORS, AND ANCHORS

A. Bolts: ASTM A307; Grade A or B.
   1. Finish: Unfinished

B. High Strength Bolts: ASTM A325; Type 1 or ASTM A490; Type 1.
   1. Finish: Unfinished

C. Nuts: ASTM A563 heavy hex type.
   1. Finish: Unfinished

D. Washers: ASTM F436; Type 1, circular
   1. Finish: Unfinished

E. Threaded Rods: ASTM A36/A36M; Grade A.
   1. Finish: Unfinished

F. Forged Structural Steel Hardware:
   1. Clevises and Turnbuckles: ASTM A108; Grade 1085.
   2. Eye Nuts and Eye Bolts: ASTM A108; Grade 1030.
   3. Sleeve Nuts: ASTM A108; Grade 1018.
   4. Rod Ends, Yoke Ends and Pins, Cotter Pins, and Coupling Nuts: Carbon steel.

2.3 WELDING MATERIALS

A. Welding Materials: AWS D1.1; type required for materials being welded.

2.4 ACCESSORIES

A. Grout: Non-shrink type, pre-mixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing additives, capable of developing minimum compressive strength of 7,000 psi at 28 days

B. Shop and Touch-Up Primer: SSPC Paint 15, Type 1, red oxide.

2.5 FABRICATION

A. Continuously seal joined members by continuous welds. Grind exposed welds smooth.

B. Fabricate connections for bolt, nut, and washer connectors.

C. Develop required camber for members.

2.6 FINISH

A. Prepare structural component surfaces in accordance with SSPC SP 3.

B. Shop prime structural steel members.

C. Galvanizing for Structural Steel Members: ASTM A123/A123M; minimum 1.2 oz/sq ft coating thickness; galvanize after fabrication.

D. Galvanizing for Fasteners, Connectors, and Anchors:
1. Hot-Dipped Galvanizing: ASTM A153/A153M.
2. Mechanical Galvanizing: ASTM B695; Class 50 minimum.

2.7 SOURCE QUALITY CONTROL AND TESTS

A. Section 014000 - Quality Requirements: Testing, inspection and analysis requirements.

B. Shop test bolted and welded connections as specified for field quality control tests.

C. When fabricator is approved by authority having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
1. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Verification of existing conditions before starting work.

B. Verify bearing surfaces are at correct elevation.

C. Verify anchors rods are set in correct locations and arrangements with correct exposure for steel attachment.

3.2 PREPARATION

A. Furnish templates for installation of anchor rods and embedments in concrete and masonry work.

3.3 ERECTION

A. Allow for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in alignment until completion of erection and installation of permanent bracing.

B. Field weld components and shear connectors indicated on Drawings.

C. Field connect members with threaded fasteners; tighten to snug tight for bearing type connections.

D. Do not field cut or alter structural members without approval of Architect/Engineer.

E. After erection, touch up welds and abrasions to match shop finishes.

3.4 GROUT INSTALLATION

A. Grout [under base plates in accordance with Section 036000.

B. Shim bearing plates and equipment supports to proper elevation, snug tighten anchor bolts.

C. Fill void under bearing surface with grout. Install and pack grout to remove air pockets.

D. Moist cure grout.

E. Remove forms after grout is set. Trim grout edges to from smooth surface, splayed 45 degrees.

F. Tighten anchor bolts after grout has cured for a minimum of 3 days.

3.5 ERECTION TOLERANCES

A. Section 014000 - Quality Requirements: Tolerances.

B. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.

C. Maximum Offset From Alignment: 1/4 inch.

3.6 FIELD QUALITY CONTROL

A. Section 014000 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

B. Bolted Connections: Inspect in accordance with AISC specifications.
   1. Visually inspect all bolted connections.

2. For Direct Tension Indicators, comply with requirements of ASTM F959. Verify that gaps are less than gaps specified in Table 2.

C. Welding: Inspect welds in accordance with AWS D1.1.
1. Certify welders and conduct inspections and tests as required. Record types and locations of defects found in work. Record work required and performed to correct deficiencies.
2. Visually inspect all welds.
3. Ultrasonic Inspection: ASTM E164; perform on all full penetration welds.
4. Liquid Penetrant Inspection: ASTM E165.

D. Correct defective bolted connections and welds.

END OF SECTION

SECTION 05 21 00

STEEL JOISTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Open web steel joists and shear stud connectors, with bridging, attached seats and anchors.

B. Related Sections:
   1. Section 051200 - Structural Steel: Superstructure framing.
   2. Section 053110 – Steel Floor Deck
   3. Section 053123 - Steel Roof Deck
   4. Section 055000 - Metal Fabrications: Non-framing steel fabrications attached to joists.

1.2 REFERENCES

A. American Institute of Steel Construction:
   1. AISC Seismic Provisions for Structural Steel Buildings.

B. ASTM International:
   1. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
   2. ASTM A108 - Standard Specification for Steel Bars, Carbon, Cold Finished, Standard Quality.
   3. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
   4. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
   5. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
   6. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts.
   7. ASTM B695 - Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
   8. ASTM F436 - Standard Specification for Hardened Steel Washers.
   9. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.

C. American Welding Society:
   1. AWS D1.1 - Structural Welding Code - Steel.

D. Steel Joist Institute:
   1. SJI K - Standard Specifications for Open Web Steel Joists, K-series.

2. SJI LH/DLH - Standard Specifications for Longspan Steel Joists, LH-Series and Deep Longspan Steel Joists, DLH-Series.
3. SJI JG - Standard Specification for Joist Girders.

E. SSPC: The Society for Protective Coatings:
1. SSPC - Steel Structures Painting Manual.
2. SSPC SP 1 - Solvent Cleaning.
3. SSPC SP 10 - Near-White Blast Cleaning.

1.3 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal requirements.

B. Shop Drawings:
1. Indicate standard designations, configuration, sizes, spacing, locations of joists, joist leg extensions.
2. Joist coding, bridging, connections, attachments.
3. Connection details.
4. Cambers

C. Welders' Certificates: Submit manufacturer's certificates, certifying welders employed on the Work, verifying AWS qualification within previous 12 months.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with the following:
1. Steel Joist Institute.

1.5 QUALIFICATIONS

A. Design connections not detailed on drawings under direct supervision of Professional Engineer experienced in design of this Work and licensed in State of Texas.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Section 016000 - Product Requirements: Product storage and handling requirements.

PART 2 PRODUCTS

2.1 MATERIALS

A. Manufactures: to be certified by SJI
1. Vulcraft Steel Joist
2. SEYCO Joist Company
3. Or approved equal

B. Open Web Joists Members: SJI Type K. LH Longspan. DLH Deep Longspan and joist Girders.

C. Nuts: ASTM A563 heavy hex type.
1. Finish: Unfinished

D. Washers: ASTM F436; Type 1
1. Finish: Unfinished

E. Structural Steel For Supplementary Framing and Joist Leg Extensions: ASTM A36/A36M.

F. Welding Materials: AWS D1.1; type required for materials being welded.

2.2 FABRICATION

A. Furnish bottom and top chord extensions as indicated on drawings.

B. Fabricate to achieves minimum end bearing of:
1. 2-1/2 inches on steel.
2. 4 inches on masonry.

2.3 FINISH

A. Shop prime joists and supplementary framing members. Do not prime surfaces that will be fireproofed.

B. Prepare joist component surfaces in accordance with SSPC SP 2.

2.4 SOURCE QUALITY CONTROL AND TESTS

A. Furnish shop testing and analysis of steel sections.

B. When fabricator is approved by authority having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
1. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

3.2 ERECTION

A. Erect and bear joists on supports.

B. Allow for erection loads. Install sufficient temporary bracing to maintain framing safe, plumb, and in alignment.

C. Coordinate placement of anchors in masonry construction for securing bearing plates.

D. After joist alignment and installation of framing, field weld joist seat to bearing plates or angles.

E. Position and field weld joist chord extensions and wall attachments as detailed.

F. Frame floor and roof openings greater than 18 inches with supplementary framing.

G. Do not permit erection of decking until joists are bridged, and secured or until completion of erection and installation of permanent bridging and bracing.

H. Do not field cut or alter structural members without approval of Architect/Engineer.

I. After erection, prime welds, abrasions, and surfaces not shop primed

3.3 ERECTION TOLERANCES

A. Section 014000 - Quality Requirements: Tolerances.

B. Maximum Variation From Plumb: ¼ inch.

C. Maximum Offset From Alignment: 1/4 inch.

3.4 FIELD QUALITY CONTROL

A. Section 014000 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.

B. Field inspect members, connections, welds, and tightening of high strength bolts in slip-critical connections.

END OF SECTION

SECTION 05 31 23

STEEL ROOF DECK

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Steel roof deck and accessories.
   2. Bearing plates and angles.

B. Related Sections:
   1. Section 033000 - Cast-in-Place Concrete.
   2. Section 035216 – Lightweight Insulating Concrete.
   3. Section 051200 - Structural Steel.
   4. Section 052100 - Steel Joists.

1.2 REFERENCES

A. American Society of Civil Engineers:
   1. ASCE 3 - Standard Practice for the Construction and Inspection of Composite Slabs.

B. ASTM International:
   1. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
   2. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   3. ASTM A924/A924M - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
   4. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.

C. American Welding Society:
   1. AWS D1.1 - Structural Welding Code - Steel.

D. Steel Deck Institute:
   1. SDI 29 - Design Manual for Composite Decks, Form Decks and Roof Decks.

E. SSPC: The Society for Protective Coatings:
   1. SSPC Paint 15 - Steel Joist Shop Paint.

1.3 PERFORMANCE REQUIREMENTS

A. Design metal deck in accordance with SDI 29 Design Manual and ASCE 3.

B. Calculate to structural working stress design and maximum vertical deck deflection of 1/240.

C. Design deck with maximum lateral diaphragm deflection of 1/500 of story height.

1.4 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal requirements.

B. Shop Drawings: Indicate deck plan, support locations, Projections, openings and reinforcement, pertinent details, and accessories.

C. Product Data: Submit deck profile characteristics and dimensions, structural properties, and finishes

D. Manufacturer’s Installation Instructions: Submit manufacturer's installation instructions.

E. Manufacturer’s Certificates: Certify Products meet or exceed specified requirements.

F. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within previous 12 months.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ASCE 3 for composite decks.

1.6 QUALIFICATIONS

A. Design deck layout, spans, fastening, and joints under direct supervision of Professional Engineer experienced in design of this Work and licensed. In State of Texas.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section 016000 - Product Requirements: Product storage and handling requirements.

B. Cut plastic wrap to encourage ventilation.

C. Separate sheets and store deck on dry wood sleepers; slope for positive drainage.

PART 2 PRODUCTS

2.1 MATERIALS

A. Sheet Steel: ASTM A653, Grade 33 Structural Quality; with G90 galvanized coating conforming to ASTM A525.

B. Bearing Plates or Angles: ASTM A36 steel.

C. Welding Materials: AWS D1.1.

2.2 FABRICATION

A. Metal Deck: Sheet steel, configured as follows:
1. Span Design: multiple
2. Minimum Metal Thickness Excluding Finish: 22 gage.
3. Minimum Allowable Diaphragm Shear: 250 plf.
4. Nominal Height: 1-1/2 inch
5. Side Joints: lapped

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

3.2 INSTALLATION

A. Erect metal deck in accordance with SDI Manual.

B. Bear deck on steel supports with 1-1/2 3 inch minimum bearing. Align and level.

C. Fasten ribbed deck to steel support members at ends and intermediate supports with as indicated on drawings.

D. Weld in accordance with AWS D1.1.

E. Seal deck joints, laps, ends, and penetrations with sealant to achieve permanent air seal consistent with air barrier system specified in Section 07270.

F. Reinforce steel deck openings from 6 to 18 inches in size with 2 x 2 x 1/4 inch steel angles. Place framing angles perpendicular to flutes;extend minimum two flutes beyond each side of opening and mechanically attach to deck at each flute.

G. Install wet concrete stops at roof edge upturned to top surface of slab to contain wet concrete. Install stops of sufficient strength to remain stationary under wet concrete without distortion.

H. Install sheet steel closures and angle flashings to close openings between deck and walls, columns, and openings.

I. Position roof sump pans with flange bearing on top surface of deck. Fusion weld at each deck flute.

J. Place metal cant strips in position and mechanically attach.

K. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with touch-up prime paint.

3.3 FIELD QUALITY CONTROL

A. Welding: Inspect welds in accordance with AWS D1.1.

END OF SECTION

SECTION 05 40 00

COLD-FORMED METAL FRAMING

PART 1 GENERAL

1.1 SUMMARY

A. Section includes load bearing formed steel stud exterior wall, interior wall; and formed steel purlin, framing and bridging.

B. Related Sections:
1. Section 053110 - Steel Floor Deck: Metal floor decking supported by wall stud metal framing.
2. Section 053123 - Steel Roof Deck: Metal roof decking supported by wall stud metal framing.
3. Section 061000 - Framing and Sheathing.
4. Section 092216 - Non-Load-Bearing Metal Framing System.

1.2 REFERENCES

A. American Iron and Steel Institute:
1. AISI General - Standard for Cold-Formed Steel Framing - General Provisions.
2. AISI Header - Standard for Cold-Formed Steel Framing - Header Design.
3. AISI NASPEC - North American Specification for Design of Cold-Formed Steel Structural Members.
4. AISI - Residential Steel Framing Manual.

B. ASTM International:
1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
2. ASTM A780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
3. ASTM A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members.
4. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
5. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
6. ASTM A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members.

7. ASTM C955 - Standard Specification for Load-Bearing (Transverse and Axial) Steel Studs, Runners (Tracks), and Bracing or Bridging for Screw Application of Gypsum Panel Products and Metal Plaster Bases.

C. American Welding Society:
   1. AWS D1.1 - Structural Welding Code - Steel.
   2. AWS D1.3 - Structural Welding Code - Sheet Steel.

D. National Association of Architectural Metal Manufacturers:
   1. NAAMM ML/SFA 540 - Lightweight Steel Framing Systems Manual.

E. SSPC: The Society for Protective Coatings:
   1. SSPC Paint 15 - Steel Joist Shop Paint.
   2. SSPC Paint 20 - Zinc-Rich Primers (Type I - Inorganic and Type II - Organic).

F. Steel Stud Manufacturers Association:
   1. SSMA - Product Technical Information.

1.3 SYSTEM DESCRIPTION

A. Size components to withstand design loads as follows:
   1. Vertical Assembly: 25 psf positive and 30 psf negative.
   2. Horizontal Assembly: 20 psf live loads.

B. Maximum Allowable Deflection: 1: 360 of span.

C. Wall System:
   1. Design to AISI NASPEC, AISC General, and AISC Header.
   2. Design to provide for movement of components without damage, failure of joint seals, undue stress on fasteners, or other detrimental effects when subject to seasonal or cyclic day/night temperature ranges.
   3. Design system to accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.

1.4 PERFORMANCE REQUIREMENTS

A. Select stud thickness to resist minimum 5 psf uniform load and maximum 1/360 deflection.

1.5 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal requirements.

B. Shop Drawings:
   1. Indicate component details, framed openings, bearing, anchorage, loading, welds, type and location of fasteners, and accessories or items required of related Work.
   2. Indicate stud, floor joist, ceiling joist, roof joist, roof rafter, roof truss, and layout.
   3. Submit calculations for loadings and stresses of specially fabricated framing, and roof trusses, under Professional engineer's seal.

C. Product Data: Submit data on standard framing members; describe materials and finish, product criteria, and limitations.

D. Manufacturer's Installation Instructions: Submit special procedures and perimeter conditions requiring special attention.

1.6 QUALITY ASSURANCE

A. Calculate structural properties of framing members in accordance with AISI NASPEC.

B. Furnish framing materials in accordance with SSMA - Product Technical Information.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
   1. Current member of Steel Stud Manufacturers Association.

B. Installer: Company specializing in performing Work of this section with minimum 3 years documented experience or as approved by manufacturer.

C. Design structural elements under direct supervision of Professional Engineer experienced in design of this Work and licensed in State of Texas.

1.8 COORDINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

PART 2 PRODUCTS

2.1 COLD-FORMED METAL FRAMING

A. Manufacturers:
   1. Clark Steel Framing Systems
   2. Harrisson Manufacturing Co.

3. Marino\Ware
4. Unimast Incorporated
5. Dietrich Metal Framing
6. Substitutions: Section 016000 - Product Requirements

B. Cold-Formed Metal Framing: ASTM C955.

2.2 FRAMING COMPONENTS

A. Steel Sheet: ASTM A1003/A1003M; Structural Grade, Type H

1. Grade: ST50H.

2.3 ACCESSORIES

A. Bracing, Furring, Bridging: Formed sheet steel, thickness determined by performance requirements specified.

B. Plates, Gussets, Clips: Formed sheet steel, thickness determined by performance requirements specified.

C. Touch-Up Paint: Match shop primer and finish paint.

2.4 FASTENERS

A. Self-drilling, Self-tapping Screws, Bolts, Nuts, and Washers: Steel, hot dip galvanized.

B. Anchorage Devices: Power actuated, drilled expansion bolts, and screws with sleeves.

C. Welding: In conformance with AWS D1.1 and AWS D1.3.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Coordination and project conditions.

B. Verify substrate surfaces and building framing components are ready to receive Work.

C. Verify rough-in utilities are in proper location.

3.2 ERECTION OF STUDS

A. Align floor and ceiling tracks; locate to partition layout. Secure in place with fasteners by welding at maximum 24 inches oc.

B. Place studs at 16 inches oc; not more than 2 inches from abutting walls and at each side of openings.

C. Construct corners using minimum three studs. Double stud wall openings, door jambs, and window jambs.

D. Erect load bearing studs one piece full length. Splicing of studs is not permitted.

E. Erect load bearing studs, brace, and reinforce to develop full strength, to achieve design requirements.

F. Fully seat axial loaded studs in receiving tracks maximum 1/16 inch gap between stud and track web).

G. Install intermediate studs above and below openings to align with wall stud spacing.

H. Install studs with deflection allowance in stud track, directly below horizontal building framing at non-load bearing framing.

I. Install framing between studs for attachment of mechanical and electrical items, and to prevent stud rotation.

J. Touch-up field welds and damaged metallic coatings surfaces with primer to match shop coating.

3.3 ERECTION OF JOISTS PURLINS

A. Install framing components.

B. Make provisions for erection stresses. Install temporary bracing to maintain alignment, until permanent bracing and attachments are installed.

C. Set purlins parallel and level, with lateral bracing and bridging.

D. Locate joist end bearing directly over load bearing studs or install load distributing member to top of stud track.

E. Touch-up field welds and damaged metallic coatings surfaces with primer to match shop coating.

END OF SECTION

SECTION 060670

HIGH PRESSURE DECORATIVE LAMINATES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. High pressure decorative laminate for vertical and horizontal surfaces of cabinets, countertops, paneling, and windowsills.

1.02 RELATED SECTIONS

A. Section 062023 - Finish Carpentry.
B. Section 064100 - Custom Cabinets.

1.03 REFERENCES

A. NEMA LD 3 - High-Pressure Decorative Laminates; 2005. (ANSI/NEMA LD 3)
B. ANSI A161.2 - Performance Standards for Fabricated High Pressure Decorative Countertops; 1998.
C. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2005.

1.04 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES
B. Product Data: Manufacturer's catalog data, detail sheets, and specifications.
C. Samples: Minimum 2 inches by 2 inches samples indicating full range of color and pattern variation.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Wilsonart (800) 433-3222 www.wilsonart.com
B. Nevamar Decorative Surfaces; 8339 Telegraph Road, Odenton, MD 2 1113-1397. ASD. Tel: (410) 551-5000 or (800) 638-4380. www.nevamar.com.
C. Formica Corporation; www.formica.com
D. Substitutions: See Section 01600 - Product Requirements.

2.02 MATERIALS

A. High Pressure Decorative Laminates: Complying with NEMA LD 3, of grades and thicknesses as indicated.
   1. Colors, Patterns, and Finishes: to be selected by architect.
B. High-Pressure Decorative Laminate for Vertical Surfaces: Laminated Plastic Vertical Forming Grade VF-3 (VGP):
   1. Thickness: 0.028 plus/minus 0.004 inch.
   2. Color/Pattern: to be selected by architect.
C. High-Pressure Decorative Laminate for Other Horizontal Surfaces: Laminated Plastic Horizontal Grade H-5 (HGS):
   1. Thickness: 0.048 plus/minus 0.005 inch.
   2. Color/Pattern: to be selected by architect.
D. Core Material: Laminate grade plywood.

2.03 FABRICATION

A. Bond plastic laminate to core material using adhesives and techniques recommended by adhesive manufacturer and ANSI A161.2.
B. Take care that moisture imbalance does not exist between plastic laminate and substrate before fabrication.
C. Provide minimum radius of 1/8 inch at inside corners of cut-outs; file edges smooth to prevent stress cracking.
D. Saw, drill, edge file, sand, and rout plastic laminate with decorative side up to prevent cracking or chipping of laminate surface.
    1. Use carbide tipped cutting edges on saws, drills, and routers.
    2. Drill plastic laminate with a wood backing to prevent "breakout" at bottom of drilled holes.
    3. Cut curved edges slightly oversize and finish by sanding, filing, or routing for smooth edges.

PART - 3 EXECUTION

3.01 INSTALLATION OF FABRICATED UNITS

A. See Section 062023.

END OF SECTION

SECTION 061001

ROUGH CARPENTRY - INTERIOR

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Section Includes:
   1 Wood blocking and nailers.
   2 Plywood backing panels.

1.03 DEFINITIONS

A. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.
B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
   1 NeLMA: Northeastern Lumber Manufacturers' Association.
   2 WCLIB: West Coast Lumber Inspection Bureau.
   3 WWPA: Western Wood Products Association.

1.04 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
   1 Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
   2 Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
   3 For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5664.

1.05 QUALITY ASSURANCE

A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.01 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1 Factory mark each piece of lumber with grade stamp of grading agency.
2 Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
3 Provide dressed lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness unless otherwise indicated.

2.02 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.
1 Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:
1 Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2 Wood sills, sleepers, blocking, and similar concealed members in contact with masonry or concrete.
3 Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.

2.03 FIRE-RETARDANT-TREATED MATERIALS

A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.
1 Use treatment that does not promote corrosion of metal fasteners.
2 Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D 2898. Use for exterior locations and where indicated.
3 Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.
4 Design Value Adjustment Factors: Treated lumber shall be tested according ASTM D 5664 and design value adjustment factors shall be calculated according to ASTM D 6841.

C. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.

D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.

E. Application: Treat all rough carpentry unless otherwise indicated.

2.04 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
1 Blocking.
2 Nailers.
3 Rooftop equipment bases and support curbs.
4 Cants.

B. For items of dimension lumber size, provide Construction or No. 2 grade lumber and any of the following species:
1. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and

other defects that will interfere with attachment of other work.

2.05 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: DOC PS 1, Exterior, AC, fire-retardant treated, in thickness indicated or, if not indicated, not less than 3/4-inch nominal thickness.
   1. Plywood shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.06 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
   1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.
B. Nails, Brads, and Staples: ASTM F 1667.
C. Power-Driven Fasteners: NES NER-272.
D. Wood Screws: ASME B18.6.1.
E. Lag Bolts: ASME B18.2.1 .
F. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
G. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry assemblies and equal to four times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
   1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.

PART 3 - EXECUTION

3.01 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.
B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
C. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels. Install fire-retardant treated plywood backing panels with classification marking of testing agency exposed to view.
D. Do not splice structural members between supports unless otherwise indicated.
E. Provide blocking as indicated and as required to support facing materials, fixtures, specialty items, and trim.
   1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches o.c.
F. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
G. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
   1 Use inorganic boron for items that are continuously protected from liquid water.
   2 Use copper naphthenate for items not continuously protected from liquid water.
H. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
   1 Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
   2 Table R602.3 (1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One-and Two-Family Dwellings.
I. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.02 WOOD BLOCKING, AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.
C. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

3.03 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION

SECTION 061140

WOOD BLOCKING AND CURBING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Roof nailers and curbs.
B. Roofing cants.
C. Blocking in wall and roof openings.
D. Fire retardant treatment of wood.
E. Preservative treatment of wood.
F. Telephone and electrical panel boards.
G. Concealed wood blocking for support of toilet and bath accessories, wall cabinets, and wood trim.

1.02 REFERENCES

A. AWPA C2 - Lumber, Timber, Bridge Ties and Mine Ties -- Preservative Treatment by Pressure Processes; American Wood-Preservers' Association; 2002.
B. AWPA C9 - Plywood -- Preservative Treatment by Pressure Processes; American Wood-Preservers' Association; 2003.
C. AWPA C20 - Structural Lumber -- Fire Retardant Treatment by Pressure Processes; American Wood-Preservers' Association; 2002.
D. AWPA C27 - Plywood -- Fire-Retardant Treatment by Pressure Processes; American Wood-Preservers' Association; 2002.
E. AWPA U1 - Use Category System: User Specification for Treated Wood; American Wood-Preservers' Association; 2005.
F. PS 1 - Construction and Industrial Plywood; National Institute of Standards and Technology (Department of Commerce); 1995.
G. PS 20 - American Softwood Lumber Standard; National Institute of Standards and Technology (Department of Commerce); 2005.
H. SPIB (GR) - Grading Rules; Southern Pine Inspection Bureau, Inc.; 2002.

1.03 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES

1.04 QUALITY ASSURANCE

A. Lumber: Comply with PS 20 and approved grading rules and inspection agencies.
B. Plywood: Comply with PS 1.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Lumber fabricated from old growth timber is not permitted.

2.02 DIMENSION LUMBER

A. Grading Agency: Southern Pine Inspection Bureau, Inc. (SPIB).

B. Sizes: Nominal sizes as indicated on drawings, S4S.
C. Moisture Content: Kiln-dry or MC15.

D. Miscellaneous Blocking, Furring, and Nailers:
   1. Lumber: S4S, No. 2 or Standard Grade.
   2. Boards: Standard or No. 3.

2.03 CONSTRUCTION PANELS

A. Plywood Sheathing: PS 1, Grade C-C, Exterior Exposure.
B. Miscellaneous Panels:
   1. Concealed Plywood: PS 1, C-C Plugged, exterior grade.
   2. Exposed Plywood: PS 1, A-D, interior grade.
   3. Electrical Component Mounting: APA rated sheathing, fire retardant treated.

2.04 ACCESSORIES

A. Fasteners and Anchors:
   1. Fasteners: Hot-dipped galvanized steel per ASTM A 153/A 153M for high humidity and treated wood locations, unfinished steel elsewhere.
   2. Anchors: Toggle bolt type for anchorage to hollow masonry.

2.05 FACTORY WOOD TREATMENT

A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
B. Fire Retardant Treatment, Exterior Type: AWPA Use Category UCFB, Commodity Specification H (Treatment C20 for lumber and C27 for plywood), chemically treated and pressure impregnated, maximum flame spread rating of 25 when tested in accordance with ASTM E 84 and with no evidence of significant combustion when test is extended for an additional 20 minutes both before and after accelerated weathering test performed in accordance with ASTM D 2898; kiln dried after treatment to maximum moisture content of 19 percent for lumber and 15 percent for plywood.
C. Fire Retardant Treatment, Interior Type A: AWPA Use Category UCFA, Commodity Specification H (Treatment C20 for lumber and C27 for plywood), low temperature (low hygroscopic) type, chemically treated and pressure impregnated, maximum flame spread rating of 25 when tested in accordance with ASTM E 84 and with no evidence of significant combustion when test is extended for an additional 20 minutes; kiln dried after treatment to maximum moisture content of 19 percent for lumber and 15 percent for plywood.
D. Preservative Pressure Treatment of Lumber Above Grade: AWPA Use Category UC3B, Commodity Specification A (Treatment C2) using waterborne preservative to 0.25 lb/cu ft retention.
   1. Kiln dry after treatment to maximum moisture content of 19 percent.
   2. Treat wood in contact with roofing, flashing, or waterproofing.
   3. Treat wood in contact with masonry or concrete.
   4. Treat wood less than 18 inches above grade.
E. Preservative Pressure Treatment of Plywood Above Grade: AWPA Use Category UC2 and UC3B, Commodity Specification F (Treatment C9) using waterborne preservative to 0.25 lb/cu ft retention.
   1. Kiln dry plywood after treatment to maximum moisture content of 19 percent.
   2. Treat plywood in contact with roofing, flashing, or waterproofing.
   3. Treat plywood in contact with masonry or concrete.
   4. Treat plywood less than 18 inches above grade.
F. Pressure Treatment of Lumber in Contact with Soil: AWPA Treatment C2 using waterborne preservative to 0.4 lb/cu ft retention.

G. Restrictions: Do not use lumber or plywood treated with chromated copper arsenate (CCA) in exposed exterior applications subject to leaching.

PART 3 - EXECUTION

3.01 FRAMING INSTALLATION

A. Set members level and plumb, in correct position.
B. Place horizontal members with crown side up.
C. Construct curb members of single pieces.
D. Space framing and furring members 16 inches o.c.
E. Curb roof openings except where prefabricated curbs are provided. Form corners by alternating lapping side members.
F. Coordinate curb installation with installation of decking and support of deck openings.
G. Provide miscellaneous members as indicated or as required to support finishes, fixtures, specialty items, and trim.

3.02 INSTALLATION OF CONSTRUCTION PANELS

A. Sheathing: Secure with long dimension perpendicular to framing members, with ends over firm bearing and staggered, using nails, screws, or staples.
B. Install telephone and electrical panel back boards made of plywood or other acceptable structural panels at locations indicated. Size back boards to be minimum 96 inches beyond size of telephone and electrical panels.

3.03 SITE APPLIED WOOD TREATMENT

A. Apply preservative treatment compatible with factory applied treatment at site-sawn cuts, complying with manufacturer's instructions.
B. Allow preservative to dry prior to erecting members.

END OF SECTION

SECTION 061600

SHEATHING

PART 1 -GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
1 Wall sheathing.
2 Sheathing joint and penetration treatment.

1.3 ACTION SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES

1.4 QUALITY ASSURANCE

A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 -PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For assemblies with fire-resistance ratings, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E 119 by a testing and inspecting agency acceptable to authorities having jurisdiction.
1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory."

2.2 WALL SHEATHING

A. Glass-Mat Gypsum Wall Sheathing: ASTM C 1177/1177M.
1. Products: Subject to compliance with requirements, provide one of the following:
a. CertainTeed Corporation; GlasRoc.
b. G-P Gypsum Corporation; Dens-Glass Gold.
c. Temple-Inland Inc.; GreenGlass
d. United States Gypsum Co.; Securock.
2 Type and Thickness: Type X, [1/2] [5/8] inch thick.

3 Size: 48 by 108 inches.

2.3 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

A. Sealant for Glass-Mat Gypsum Sheathing: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing and recommended by tape and sheathing manufacturers for use with glass-fiber sheathing tape and for covering exposed fasteners.
   1. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch, of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

PART 3 -EXECUTION

3.1 INSTALLATION, GENERAL

A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
C. Securely attach to substrate by fastening as indicated, complying with the following:
   1 NES NER-272 for power-driven fasteners.
   2 Table 2304.9.1, "Fastening Schedule," in ICC's "International Building Code."
D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
E. Coordinate wall sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
G. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.2 GYPSUM SHEATHING INSTALLATION

A. Comply with GA-253 and with manufacturers written instructions.
   1 Fasten gypsum sheathing to cold-formed metal framing with screws.
   2 Install boards with a 3/8-inch (9.5-mm) gap where non-load-bearing construction abuts structural elements.
   3 Install boards with a 1/4-inch (6.4-mm) gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.
C. Vertical Installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Attach boards at perimeter and within field of board to each stud.
   1 Space fasteners approximately 8 inches 200 mm o.c. and set back a minimum of 3/8 inch 9.5 mm from edges and ends of boards.
   2 For sheathing under stucco cladding, boards may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
D. Seal sheathing joints according to sheathing manufacturer's written instructions.
   1 Apply elastomeric sealant to joints and fasteners and trowel flat. Apply sufficient amount of sealant to completely cover joints and fasteners after troweling. Seal other penetrations and openings.
   2 Apply glass-fiber sheathing tape to glass-mat gypsum sheathing joints and apply and trowel silicone emulsion sealant to embed entire face of tape in sealant. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered. Seal other penetrations and openings.

END OF SECTION

SECTION 062023

INTERIOR FINISH CARPENTRY

PART 1 -GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following:
   1 Plastic-laminate countertops.
   2 Shop finishing of interior woodwork.

1.03 DEFINITIONS

A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.

1.04 SUBMITTALS

A. Product Data: For each type of product indicated cabinet hardware and accessories.
B. Product Data: For panel products, high-pressure decorative laminate, fire-retardant-treated materials, cabinet hardware, and accessories and finishing materials and processes.
   1. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
C. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
   1 Show details full size.
   2 Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
   3 Show locations and sizes of cutouts and holes for plumbing fixtures installed in architectural woodwork.
D. Samples for Initial Selection:
   1 Shop-applied transparent finishes.
   2 Plastic laminates.
E. Samples for Verification:
   1 Lumber with or for transparent finish, not less than 50 sq. in. , for each species and cut, finished on 1 side and 1 edge.
   2 Veneer leaves representative of and selected from flitches to be used for transparent-finished woodwork.
   3 Veneer-faced panel products with or for transparent finish, 8 by 10 inches , for each species and cut. Include at least one face-veneer seam and finish as specified.
   4 Plastic laminates, 8 by 10 inches , for each type, color, pattern, and surface finish, with 1 sample applied to core material.
F. Woodwork Quality Standard Compliance Certificates: AWI Quality Certification Program certificates .

1.05 QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance. Shop is a certified participant in AWI's Quality Certification Program.
B. Installer Qualifications: Certified participant in AWI's Quality Certification Program.
C. Source Limitations: Engage a qualified woodworking firm to assume undivided responsibility for production of interior architectural woodwork with sequence-matched wood veneers.
D. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards"

for grades of interior architectural woodwork indicated for construction, finishes, installation, and other requirements.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

1.07 PROJECT CONDITIONS

A. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
   1 Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.
   2 Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.08 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

PART 2 -PRODUCTS

2.01 WOODWORK FABRICATORS

A. Available Fabricators: Subject to compliance with requirements, fabricators offering interior architectural woodwork that may be incorporated into the Work include, but are not limited to, the following:

2.02 MATERIALS

A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
B. Wood Species and Cut for Transparent Finish: Plain sliced red oak with clear finish or as otherwise indicated in Finish Legend.
C. Wood Products: Comply with the following:
   1 Hardboard: AHA A135.4.
   2 Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
   3 Particleboard: ANSI A208.1, Grade M-2.
   4 Particleboard: Straw-based particleboard complying with requirements in ANSI A208.1, Grade M2, except for density.
   5 Softwood Plywood: DOC PS 1, Medium Density Overlay.
   6 Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1, made with adhesive containing no urea formaldehyde.
D. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering high-pressure decorative laminates that may be incorporated into the Work include, but are not limited to, the following:

a. Abet Laminati, Inc.
b. Formica Corporation.
c. Lamin-Art, Inc.
d. Nevamar Company, LLC; Decorative Products Div.
e. Wilsonart International; Div. of Premark International, Inc.

2.03 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets, except for items specified in Division 8 Section "Door Hardware (Scheduled by Naming Products)."
B. Hardware Standard: Comply with BHMA A156.9 for items indicated by referencing BHMA numbers or items referenced to this standard.
C. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 135 degrees of opening, self-closing. Typically Blum 125 Series.
D. Back-Mounted Pulls: BHMA A156.9, B02011. Stanley No. 4484, US26D Finish, 4x1-5/16” projection.
E. Adjustable Shelf Standards and Supports: BHMA A156.9, B04102; with shelf brackets, B04112. Unless otherwise noted, use KV model 255 steel recessed mounted standards and model 256ZC clips.
F. Drawer Slides: Side-mounted, full-extension, zinc-plated steel drawer slides with steel ball bearings, BHMA A156.9, B05091, and rated for the following loads: Box Drawer Slides: 100 lbf
   1 File Drawer Slides: 150 lbf
   2 Pencil Drawer Slides: 45 lbf .
G. Door Locks: Cam Locks by CCL Security Products.
H. Drawer Locks: If single drawer, same as above. In banks of drawers, provide cylinder module system with central locking by Hafele.
I. Elbow Catch: Ives no. 2 at pairs of locked doors.
J. Grommets for Cable Passage through Countertops: 1-1/4-inch OD, molded-plastic grommets and matching plastic caps with slot for wire passage. Color as selected by Architect. Final location as directed by Owner.
   1. Product: Subject to compliance with requirements, provide "OG series" by Doug Mockett and Co., Inc.
K. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated. Satin Chromium Plated: BHMA 626 for brass or bronze base; BHMA 652 for steel base.
   1. Satin Stainless Steel: BHMA 630.
L. Concealed Hardware Finishes: Provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.

2.04 MISCELLANEOUS MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.
B. Furring, Blocking, Shims, and Hanging Strips: Fire-retardant-treated softwood lumber, kiln dried to less than 15 percent moisture content.
C. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.
D. Adhesives, General: Do not use adhesives that contain urea formaldehyde.
E. Adhesive for Bonding Plastic Laminate: Un pigmented contact cement.
   1. Adhesive for Bonding Edges: Hot-melt adhesive or adhesive specified above for faces.
F. Edge banding for shelving on front and back edges (front edge only for fixed shelving.

2.05 FABRICATION, GENERAL

A. Interior Woodwork Grade: Unless otherwise indicated, provide Custom -grade interior woodwork complying with referenced quality standard.
B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
C. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:

1 Corners of Cabinets and Edges of Solid-Wood (Lumber) Members 3/4 Inch Thick or Less: 1/16 inch.
2 Edges of Rails and Similar Members More Than 3/4 Inch Thick: 1/8 inch .
3 Corners of Cabinets and Edges of Solid-Wood (Lumber) Members and Rails: 1/16 inch .

D. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
1 Notify Architect seven days in advance of the dates and times woodwork fabrication will be complete.
2 Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.

E. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
1. Seal edges of openings in countertops with a coat of varnish.

2.06 WOOD CABINETS FOR TRANSPARENT FINISH

A. Grade: Custom.
B. AWI Type of Cabinet Construction: Flush overlay.
C. Wood Species & Cut for Exposed Surfaces: Plain sliced red oak w/ clear finish or as indicated in Finish Legend.
1. Veneer Matching within Room: Provide cabinet veneers in each room or other space from a single flitch with doors, drawer fronts, and other surfaces matched in a sequenced set with continuous match where veneers are interrupted perpendicular to the grain.
D. Semi-exposed Surfaces: Provide surface materials indicated below:
1. Surfaces Other Than Drawer Bodies: Same species and cut indicated for exposed surfaces.
2. Drawer Sides and Backs: Solid-hardwood lumber.
3. Drawer Bottoms: Hardwood plywood.
E. Provide dust panels of 1/4-inch plywood or tempered hardboard above compartments and drawers, unless located directly under tops.
F. Provide hardwood “T” banding at door and drawer edges of species, cut and finish to match face veneer.

2.07 PLASTIC-LAMINATE COUNTERTOPS

A. Grade: Custom .
B. High-Pressure Decorative Laminate Grade: HGS.
C. Grain Direction: Parallel to cabinet fronts.
D. Edge Treatment: Same as laminate cladding on horizontal surfaces.
E. Core Material: Fire-retardant particleboard.
F. Core Material at Sinks: Particleboard made with exterior glue.
G. Backer Sheet: Provide plastic-laminate backer sheet, Grade BKL, on underside of countertop substrate.
H. Paper Backing: Provide paper backing on underside of countertop substrate.

2.08 SHOP FINISHING

A. General: Shop finish transparent-finished interior architectural woodwork at fabrication shop as specified in this Section. Refer to Division 09 painting Sections for finishing opaque-finished architectural woodwork.
B. Shop Priming: Shop apply the prime coat including back priming, if any, for transparent-finished items specified to be field finished. Refer to Division 09 painting Sections for material and application requirements.
C. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.
1. Back priming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to back of paneling and to end-grain surfaces. Concealed surfaces of plastic-laminate-clad woodwork do not require back priming when surfaced with plastic laminate, backing paper, or thermoset decorative panels.
D. Transparent Finish:
1. Grade: Custom.

2. AWI Finish System: Catalyzed polyurethane.
3. Staining: Match approved sample for color.
4. Wash Coat for Stained Finish: Apply wash-coat sealer to woodwork made from closed-grain wood before staining and finishing.
5. Open Finish for Open-Grain Woods: Do not apply filler to open-grain woods.
6. Filled Finish for Open-Grain Woods: After staining (if any), apply paste wood filler to open-grain woods and wipe off excess. Tint filler to match stained wood.
   a. Apply wash-coat sealer after staining and before filling.
7. Sheen: Satin, 31-45 gloss units measured on 60-degree gloss meter per ASTM D 523.

PART 3 -EXECUTION

3.01 PREPARATION

A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and back priming.

3.02 INSTALLATION

A. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.
C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.
D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.

F. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
   1 Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
   2 Maintain veneer sequence matching of cabinets with transparent finish.
   3 Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head sheet metal screws through metal backing or metal framing behind wall finish toggle bolts through metal backing or metal framing behind wall finish.
G. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
   1 Install countertops with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
   2 Secure backsplashes to walls with adhesive.
   3 Calk space between backsplash and wall with sealant specified in Division 07 Section "Joint Sealants."
H. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.
I. Refer to Division 09 Sections for final finishing of installed architectural woodwork not indicated to be shop finished.

3.03 ADJUSTING AND CLEANING

A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
B. Clean, lubricate, and adjust hardware.
C. Clean woodwork on exposed and semi-exposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION

SECTION 064100

ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.01 PROJECT DESCRIPTION:

A. Work Included: Provide all architectural woodwork shown on the Drawings, complete in place, as specified herein.
B. Related work described elsewhere:
   1. Laminated Plastic: SECTION 060670

1.02 QUALITY ASSURANCE:

A. Standards: Comply with standards specified herein as listed in Section 01085.
B. Qualifications of Manufacturer: Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production acceptable to the Architect.
C. Qualifications of Installers: Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods for proper performance of the work of this Section.
D. Certification: In addition to complying with all pertinent codes and regulations, comply with the "Architectural Woodwork Institute", latest edition for the grades specified, and provide certification on shop drawings and on each item of architectural woodwork signifying such compliance.

1.03 SUBMITTALS:

A. General: Comply with all provisions of Section 013000
B. Product Data:
   1. Complete materials list of all items proposed to be furnished and installed under this Section.
   2. Sufficient other data to demonstrate compliance with the specified requirements.
   3. Shop drawings showing each of the items to be provided under this Section, completely detailing joinery and other construction, including anchorage, and displaying the "Certificate of Compliance" of the Woodwork Institute for the grades specified.
   4. Samples of the proposed woods to be used.
   5. Manufacturer's recommended installation procedure.

The manufacturer's recommended installation procedures, as approved by the Architect, will become the basis for inspecting and accepting or rejecting actual installation procedures actually used on the work.

1.04 PRODUCT HANDLING:

A. Protection: Use all means necessary to protect materials of this Section before, during, and after installation and to protect the installed work and materials of all other trades.
B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 CABINETS:

A. General: Fabricate the cabinets and countertops to the dimensions and arrangements shown on the

Drawings, and according to the requirements of this Section. Use of particleboard is not permitted under any circumstances. Countertop Material: 3/4" exterior grade hardwood faced plywood, all cabinets.

B. Grades:
   1. All cabinet material that is to be plastic-clad; 3/4" hardwood-faced plywood.
   2. All other cabinet material; "Premium or Select Grade", natural finish, suitable for transparent finish.

C. Species:
   1. All cabinet material that is to be plastic-clad: Standard of the mill for the grade specified.
   2. All other cabinets: Birch veneered plywood. 1/4" x 3/4", solid birch EB6ES to match birch veneered plywood to take transparent finish to match as close as possible.

D. Countertops:
   1. All tops and edges (and back and end splashes where shown) shall be laminated plastic countertops. Comply with provisions of Section 060670, as manufactured by WILSONART Division of Ralph Wilson Plastics, or an equal approved by the Architect.

E. Finish Hardware: Provide and factory install all required finish hardware.

F. Millwork Hardware:
   1. EACH DRAWER SHALL HAVE:
      HARDWARE ITEMS (unless indicated otherwise in the Drawings)
      a. SHELF STANDARDS: KNAPE & WOGT. #255 x 646 and 87 x 646
      b. SHELF BRACKETS: K & V 256 & 646 and 18.7 x 646 x 14”
      c. EUROPEAN HINGES: Grass Nexis #3803
      d. CABINET PULLS: STANLELY #4478 X 628
      e. MAGNETIC CATCHES: K & V #1300 x 603
         STANLEY #46 X 628
      f. DRAWER SLIDES: K & V H1300 x 603
      g. LOCKS: NATIONAL LOCK #MZ-3704-831 with sleeve #M5-0405. Provide for doors and drawers. Solid wood stiles at all lock locations.
      h. HANGER RODS:
         1. TUBING: K & V #770-5CHR
         2 END FLANGES: K & V #764-CHR
         3. ADJUSTABLE HANGER:K & V H. #1195
      i. SLIDING GLASS DOORS: K & V #1093 Top & Bottom Channels
         K & V #1085 vinyl guides
         K & V #963 rachet lock for 1/4" glass

G. All millwork shall conform to the AMERICAN WOODWORK INSTITUTE.

H. Unless otherwise indicated on Drawings shelves shall be 1” x 8” Birch solid wood finished natural where exposed in a room; or, 1” x 8” Pine painted where located in a closet or storage room.

END OF SECTION

SECTION 071416

FLUID-APPLIED WATERPROOFING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Fluid-applied waterproofing above and below grade on horizontal and vertical surfaces between two-course concrete decks.
B. Fluid-applied waterproofing on concrete to receive earth fill.
C. Fluid-applied waterproofing on masonry, concrete, plywood, and incidental metal surfaces.

1.02 REFERENCES

A. ASTM C 836 - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course; 2000.
B. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers- Tension; 1998a.
C. ASTM D 5034 - Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test); 1995.
D. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials; 2000.

1.03 SUBMITTALS

A. See Section 013000 - SUBMITTAL PROCEDURES.
B. Product Data: Manufacturer's specifications and installation instructions.
C. Manufacturer's specimen warranty.
D. Laboratory tests or other data that validate product compliance with performance criteria specified.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company regularly engaged in manufacturing and marketing of products specified in this section.
B. Installer Qualifications: Qualified to perform work specified by reason of experience or training provided by product manufacturer.
C. Notify manufacturer's authorized representative at least two weeks before start of work. Schedule minimum of 3 job site inspections by manufacturer's authorized representative, first scheduled before application of product. Application of elastomeric waterproofing without prior notice will not constitute acceptance by manufacturer of waterproofing inspection and guarantee procedure.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in original factory packaging bearing identification of product, manufacturer, and batch number. Provide Material Safety Data Sheets for each product.
B. Store products in location protected from freezing, damage, construction activity, precipitation, and direct sunlight in strict accordance with manufacturer's recommendations.
C. Condition products to approximately 60 to 70 degrees F for use in accordance with manufacturer's recommendations.
D. Handle all products with appropriate precautions and care as stated on Material Safety Data Sheet.

1.06 PROJECT CONDITIONS

A. Do not use products under conditions of precipitation or freezing weather. Use appropriate measures for protection and supplementary heating to ensure proper drying and curing conditions in accordance with manufacturer's recommendations if application during inclement weather occurs.
B. Ensure substrate is dry.
C. Protect all adjacent work from contamination due to mixing, handling, and application of preparation and repair products and fluid applied waterproofing.

1.07 WARRANTY

A. Warrant fluid-applied waterproofing with performance guarantee against water penetration through system for 5 years; indicate necessary replacement material supplied at no cost to Weslaco Independent School District.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: BASF Corporation Construction Systems
889 Valley Park Drive
Shakopee, MN 55379
Tel: (800) 433-9517
www.master-builders-solutions.basf.us
1. Substitutions: See Section 01600 - Product Requirements.
2. Provide all fluid-applied waterproofing materials from a single manufacturer.

2.02 MATERIALS

A. Fluid-Applied Waterproofing: "MasterSeal HLM 5000" single-component, bitumen modified, cold liquid applied moisture curing urethane complying with ASTM C 836; trowel, roller, spray, or squeegee grade as required for application, cured properties as follows:
1. Shore 00 hardness: 85, per ASTM C 836.
2. Elongation: 600 percent, per ASTM D 412.
3. Tensile Strength: 150 psi plus or minus 5 psi, per ASTM D 412.
4. 100 Percent Modulus: 80 psi plus or minus 5 psi, per ASTM D 412.
5. Crack Bridging: Pass 1/16 inch with no loss of bond or cracking exhibited, cycled 10 times per 24 hours at 15 degrees F per ASTM C 836.
6. Swelling in Water (3 Days at Room Temperature): Nil.
7. Weatherometer (Atlas Xenon Arc 1,000 hours): No cracking, no hardening.
8. Moisture Vapor Permeability: 0.15 perm inches, measured in accordance with ASTM E 96.
9. Service Temperature Range: Minus 40 to plus 120 degrees F.
10. Minimum Recovery: 90 percent.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Inspect areas involved in work to establish extent of work, access, and need for protection of surrounding construction.

B. Protect surroundings from primers, patching repair compounds, and waterproofing products, including, but not limited to, windows, roofs, walkways, drives, automobiles, and landscaping.
C. Conduct all pre-application inspections of site verification with an authorized manufacturer's representative.

3.02 PREPARATION

A. Inspect expansion joints to ensure no deteriorated sealant, adhesion loss, or non-elastomeric calks installed in joints. Repair deficient sealant or calk with slope grade sealant.
B. Inspect through-deck penetrations, including electrical, lighting, signage, plumbing, HVAC, and fire sprinkler piping for watertight seal. Repair deficiencies with slope grade sealant.
C. Surface Preparation - Concrete:
   1. Wet cure new concrete at least 14 days.
   2. Remove all dust, dirt, and other contaminants.
   3. Open up air void pockmarks and honeycombs to allow waterproofing to fill cavities completely. Parge coat substrates exhibiting excessive pinholes, bug holes, or porosity which might cause blisters or pin-holes in membrane; use cementitious waterproofing in accordance with manufacturer's instructions
   4. Apply 60 wet mil pre-stripe of waterproofing to nonmoving joints and cracks less than 1/8 inch wide. Fill and overlap joint or crack 3 inches on each side. Feather edges.
   5. Rout and clean cracks and joints over 1/8 inch wide to minimum of 1/4 inch by 1/4 inch. Install bond breaker tape to prevent adhesion to bottom of joint. Prime joint faces only. Seal with slope grade sealant. Allow sealant to cure.
   6. Apply coat of liquid household carnauba wax over cured sealant to prevent waterproofing membrane from adhering to joint sealant. Allow wax to dry. Pre-stripe with 60 wet mils of waterproofing.
D. Surface Preparation - Metal:
   1. Sandblast or wire brush all incidental metal to bright metal. Prime with quality rust-inhibiting metal primer. Allow to dry. Re-prime surfaces.
   2. Vent, drain pipe, and post penetrations: Clean metal surfaces to bright metal and prime with quality rust-inhibiting metal primer. Allow to dry. Re-prime.
   3. Install appropriate cant with slope grade sealant. Allow sealant to cure.
   4. Pre-stripe with 60 wet mils of waterproofing. Apply pre-striping 3 inches onto concrete substrate and up to level of wearing slab intersection on penetration, vent, or drain pipe.
E. Surface Preparation - Concrete Block:
   1. Ensure substrate is clean.
   2. Apply parge coat of cementitious waterproofing in accordance with manufacturer's instructions at rate of 400 square feet per bag to produce pinhole free surface. Determine actual coverage rate based on texture and porosity of substrate by test application. Allow to cure minimum 7 days before applying waterproofing.
F. Surface Preparation - Plywood:
   1. Clean surfaces of all contaminants. Priming is not necessary on clean, dry plywood.
   2. Seal all seams with slope grade sealant. Allow to cure.
   3. Install 60 wet mils of waterproofing pre-striping 2 inches on either side of joint. Embed reinforcing fabric into pre-striping to reinforce all seams between plywood sheets and between flashing and plywood deck. Feather edges. Allow to cure overnight.
G. Detail Preparation:
   1. Install sealant cants at rigidly connected wall and slab or plywood deck intersections. Form sealant cant into corner at junction of all horizontal and vertical surfaces (wall sections, curbs, or columns) by priming. Lay 1/4 inch closed-cell backer rod in corner and apply 1 inch diameter bead of slope grade sealant. Tool to 45 degree cant. Allow sealant to cure.
   2. Apply masking tape to vertical sections at appropriate height above sealant cant to provide clean termination at level of wearing slab intersection. Allow for perimeter and isolation joints as shown

on drawings. Prime and apply 60 wet mils of waterproofing over treated cant up to masking tape and 4 inches onto deck surface.

3. Install 0.050 inch thick uncured commercial-grade neoprene sheet flashing, or an appropriate substitute, at locations of potential high movement, such as wall and slab intersections that are not structurally connected.

H. Complete all preparatory work before application begins.

3.03 APPLICATION

A. Apply grade of fluid-applied waterproofing to meet job requirements as follows:
   1. HLM 5000T for trowel application.
   2. HLM 5000R for roller application.
   3. HLM 5000S for spray application.
   4. HLM 5000SL for squeegee application.

B. Mark off areas of 125 square feet on horizontal applications.

C. Apply one 5 gallon pail per 125 square feet, 25 square feet per gallon.
   1. Spread immediately to ensure workability. Repeat procedure until entire surface is covered.
   2. Verify applied thickness of 60 wet mils with wet mil gauge as work progresses.

D. Allow to cure 48 hours at 70 degrees F and 50 percent relative humidity. Extend curing time at lower temperatures and relative humidity.

E. Dam entire deck area on horizontal surfaces to verify integrity of cured membrane by flooding with water to minimum depth of 2 inches. Allow water to stand for 24 to 48 hours. Make visual inspection of bottom deck surface to check for any water penetration. Drain area and allow to dry if repairs are necessary. Reapply waterproofing to correct deficiencies. Test area again for membrane integrity.

F. Protect waterproofing from traffic before placement of protection board and topping. Install tightly butted protection board minimum 1/8 inch thick as soon as possible.

3.04 FIELD QUALITY CONTROL

A. Final Inspection and Warranty Approval by Manufacturer's Representative:
   1. Inspect finished surface preparation, application, and finished waterproofing and require further preparation or application to achieve appropriate result.
   2. In no case will manufacturer's representative approve surface or finish if the following conditions are found: pinholes, insufficient waterproofing thickness, or any other conditions which, in manufacturer's representative's opinion, may cause failure of installation.

3.05 CLEANING

A. Remove wet waterproofing, primer, and sealant products from tools and equipment with solvent such as xylene, toluene, or MEK. Remove dried materials mechanically.

B. Clean up and properly dispose of all debris remaining on job site related to application.

END OF SECTION

SECTION 071900

WATER REPELLENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Exterior water repellent coatings for:
      a. Concrete Masonry Units
   2. Extended written warranty.

1.02 SUBMITTALS

A. Comply with Section 133000 - SUBMITTAL PROCEDURES
B. Product Data: Manufacturer's specifications and technical data including the following:
C. Detailed specification of construction and fabrication.
D. Manufacturer's installation instructions.
E. Certified test reports indicating compliance with performance requirements specified herein.
F. Quality Control Submittals:
   1. Statement of qualifications.
   2. Statement of compliance with Regulatory Requirements.
G. Field Quality Control Submittals as specified in Part 3.
H. Manufacturer's field reports.

1.03 QUALITY ASSURANCE

A. Manufacturer's Qualification: Not less than 5 years experience in the actual production of specified products.
B. Installer's Qualifications: Firm experienced in installation or application of systems similar in complexity to those required for this Project, plus the following:
   1. Acceptable to or licensed by manufacturer.
   2. Not less than 3 years experience with systems.
   3. Successfully completed not less than 5 comparable scale projects using this system.
C. Product Qualifications:
   1. Comply with the provisions of the following standards for brick masonry.
D. Surface Appearance - No change in the surface appearance or texture.
   1. ASTM E514 "Water Permeance of Masonry"
   2. - 100% reduction in the leakage rate over the control
   3. - Control wall must have a leakage rate of at least 2.0 liters/hour
E. ASTM C67 "Brick and Structural Clay Tile" Part 7 Water Absorption
   1. - 98% reduction in water absorption
F. ASTM G23 "Accelerated Weathering" for 2000 hours
   1. - only 5% loss of effectiveness over initial water repellency
G. Penetration - visual penetration into brick - 0.25 inches average
H. Regulatory Requirements: Products shall comply with State and local regulations concerning AIM (Architectural, Industrial and Maintenance) coatings regarding Volatile Organic Content (VOC).
   1. The use of 1,1,1 trichloroethane shall not be allowed.

1.04 DELIVERY STORAGE AND HANDLING

A. Packing and Shipping: Deliver products in original unopened packaging with legible manufacturer's identification.
B. Storage and Protection: Comply with manufacturer's recommendations.

1.05 PROJECT CONDITIONS

A. Environmental Requirements:
   1. Maintain ambient temperature above 20 degrees F during and 24 hours after installation.
   2. Do not proceed with application on materials if ice or frost is covering the substrate.
   3. Do not proceed with application if ambient temperature of surface exceeds 100 degree F.
   4. Do not proceed with the application of materials in rainy conditions or if heavy rain is anticipated with 4 hours after application.
B. Sealer Coordination:
   1. Verify compatibility with curing compounds, patching materials, repair mortar, paints, sealants, etc. to be used on masonry surfaces to ensure compatibility with the water repellent.

1.06 SPECIAL WARRANTIES

A. Manufacturer shall stand behind installed system for period of (5 to 10) years from Date of Substantial Completion against all the conditions indicated below. When notified in writing from Owner, Manufacturer shall, promptly and without inconvenience and cost to Owner correct said deficiencies.
B. Loss of water repellency:
   1. Brick Masonry: 1.0 mil/20 minutes or greater (80 mph wind driven rain equivalent).

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable manufacturers:
B. Basis of design is CHEM-TRETE® BSM 40 VOC, Degussa Building A&S Division 1-800-828-0919.
C. Substitutions: per specification Section 016000.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verification of Conditions: Examine areas and conditions under which Work is to be performed and:
   1. identify conditions detrimental to proper or timely completion.
   2. Do not proceed until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Protection: Install coverings to protect adjacent surfaces.
B. Surface Preparation:
   1. Verify masonry joints found to be unsound, hollow, or otherwise defective, have been raked out to a depth of 1/2 inch and pointed with mortar.
   2. Verify cracks that exceed 1/64 inch wide have been filled with pointing mortar.
   3. All repointing must be completed and allowed to cure.
   4. Remove dirt, dust and materials that will interfere with the proper and effective application of the penetrating sealer. It is the responsibility of the Contractor to prepare the surfaces of the concrete as recommended by the Water Repellent Manufacturer and acceptable to the ARCHITECT.

5. Sealants, patching materials, and expansion joints shall have been installed and approved by the ARCHITECT

3.03 FIELD QUALITY CONTROL

A. Spray Test: After water repellent has dried, spray coated surfaces with water.
B. After surfaces have adequately dried, recoat surfaces that show water absorption.
C. Manufacturer's Field Services:
   1. Furnish written certification that surface preparation method and final condition has manufacturer's approval and comply with the warranty.
D. Test area: Furnish results of test area absorption on each type of substrate. Test results shall determine application rate.
E. Test Area:
   1. Before a sealer application the following field evaluation will be done. The cost of the field testing will be the responsibility of the Water Repellent Manufacturer.
   2. Prepare a three feet by three feet area to be sprayed with the water repellent. The area will be determined by the Owner. Apply the water repellent in a flooding application, from the bottom up to cause the material to run down 6 to 8 inches below the spray pattern.
   3. After allowing five days for the sample to cure run a RILEM uptake test on the treated area.
   4. Place one tube on the brick and one tube on a mortar joint. Owner must be present for the application of the water repellent and the test.
   5. Acceptable minimum results are as stated in the warranty provisions. Coverage rate used to pass this test section must be used on entire project.
F. APPLICATION
   1. Product shall be applied as supplied by the manufacturer without dilution or alteration.
   2. Apply with a low-pressure (15 psi) airless spray equipment with a fan spray coarse nozzle, flooding the surface to obtain uniform coverage unless otherwise recommended by the manufacturer.
   3. Apply at a rate of not less than 125 square feet/gallon unless the field tests determine that a heavier rate of application is necessary to meet the performance requirements.
   4. Apply at temperature and weather conditions recommended by the manufacturer or written in this specification.
   5. specification.
   6. Follow manufacturer's recommendations concerning protection of glass, metal and other non-porous substrates. Contractor will be responsible to clean all surfaces that are contaminated by the water repellent.
   7. Follow manufacturer's recommendation concerning protection of plants, grass and other vegetation. Contractor will be responsible for replacing all plants, grass or vegetation damaged by the water repellent.
   8. Brush apply water repellent only at locations where overspray would affect adjacent materials and where not practicable for spray application.
G. CLEANING
   1. As Work Progresses: Clean spillage and overspray from adjacent surfaces using materials and methods as recommended by water repellent manufacturer.
   2. Remove protective coverings from adjacent surfaces when no longer needed.
H. COMPLETION
   1. Work that does not conform to specified requirements shall be corrected and/or replaced as directed by the Owners Representative at contractor's expense without extension of time.

END OF SECTION

SECTION 072116

PRE-ENGINEERED BUILDING BLANKET INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Provide insulation system for pre-engineered metal buildings.

B. Related Sections:
1. Section 13 34 00 - Fabricated Engineered Structures.
2. Division 21 - Fire Suppression
3. Division 22 - Plumbing; Rough-in utilities.
4. Division 23 - HVAC; Rough-in utilities.
5. Division 26 - Electrical; Rough-in utilities.

1.2 REFERENCES

A. Materials shall meet the property requirements of one or more of the following specifications as applicable to the specific product or end use:

1. American Society for Testing of Materials (ASTM):
   a. ASTM C991 - Standard Specification for Flexible Fibrous Glass Insulation for Metal Buildings.
   b. ASTM C1136 - Standard Specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation.
   c. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
   d. ASTM E 96 - Standard Test Method for Water Vapor Transmission of Materials in Sheet Form (Procedure A).
2. North American Insulation Manufacturers Association (NAIMA):
   a. NAIMA 202-96(R) (Rev. 2000) STANDARD For Flexible Fiberglass Insulation to be Laminated for Use in Metal Buildings
3. National Fire Protection Association (NFPA):
   a. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials.
4. Underwriters Laboratories (UL):
   a. UL 723 - Test for Surface Burning Characteristics of Building Materials.

1.3 DESIGN REQUIREMENTS

A. Insulation R-Value of R-30 for installed roof system.
B. The installed roof systems shall provide a continuous vapor barrier.

1.4 SUBMITTALS

A. General: Comply with all provisions of Section 013000
B. Product Data: Provide manufacturer’s data for each of the following including:
1. Roof installation instructions
2. Product data sheet
3. Design considerations guide
C. Shop Drawings: Provide shop drawings that indicate the following:
1. Liner fabric layout

2. Insulation Layout and cut list
3. Customer and project information

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Companies shall be familiar with the installation practices associated with banded liner systems.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products indoors or in a dry, covered area.
B. Do not open products until ready to use.
C. Protect products from potential construction site damage.
D. Use care when opening products as pallets may shift during shipment.
E. Banding has sharp edges. Wear cut proof gloves when handling.
F. Wear safety glasses when unpacking materials.

1.7 PROJECT CONDITIONS

A. For best results, do not install this system outside of the temperature, humidity, ventilation and environmental limits recommended by the manufacturer. Products should be kept covered and dry at temperatures less than 100°F prior to installation.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Owens Corning Insulating Systems, LLC, Toledo, OH 43659; www.owenscorning.com.

2.2 MATERIALS

A. The OptiLiner® System consists of the following materials:
1. Unfaced light density fiberglass metal building insulation in the one of the following product categories:
a. Owens Corning Certified R Metal Building Insulation
1) Complies with ASTM C991 Type 1.
2) Complies with NAIMA 202-96-REV 2000.
3) Flame Spread Index <25 and Smoke Developed Index <50 when tested in accordance with ASTM E84, NFPA 255 and UL 723.
4) Certified by SCS Global Services to contain a minimum of 65% recycled glass content, 18% pre-consumer and 47% post-consumer.
5) Thermal Resistance: R-30.
6) Unfaced.
7) GREENGUARD Indoor Air Quality Certified®.
8) GREENGUARD Gold Certified.
b. Owens Corning MBI Plus Metal Building Insulation
1) Flame Spread Index <25 and Smoke Developed Index <50 when tested in accordance with ASTM E 84, NFPA 255 and UL 723.
2) Certified by SCS Global Services to contain a minimum of 65% recycled glass content, 18% pre-consumer and 47% post-consumer.
3) Thermal Resistance: R-30.
4) Unfaced.
5) GREENGUARD Indoor Air Quality Certified®.

6) GREENGUARD Gold Certified.

c. Owens Corning Metal Building Utility Blanket
1) Flame Spread Index <25 and Smoke Developed Index <50 when tested in accordance with ASTM E 84, NFPA 255 and UL 723.
2) Certified by SCS Global Services to contain a minimum of 65% recycled glass content, 18% pre-consumer and 47% post-consumer.
3) Thermal Resistance: Available R-Values = R7.
4) Unfaced.
5) GREENGUARD Indoor Air Quality Certified®.
6) GREENGUARD Gold Certified.

2. Fabric liner facing/vapor barrier composed of woven high-density polyethylene coated on both sides with polyethylene. Complies with the following:
a. ASTM C1136, Types I through Type VI
1) Type I-IV exception for dimensional stability (value is < 2.0%.)
b. Perm rating: ≤ 0.02 when tested in accordance with ASTM E 96 Procedure A.
c. Flame Spread Index < 25 and Smoke Developed Index < 50 when tested in accordance with ASTM E 84.
d. Color:
1) White
3. Vapor barrier adhesive. Complies with the following:
a. Application temperature 10°F to 110° F
4. Double sided vapor barrier tape. Complies with the following:
a. Width 0.75”
b. Rubber based and free film
5. Patch tape. Complies with the following:
a. Adhesive added to one side
b. Installation temperature from 10°F to 110°F
c. 3" width
6. Metal Banding/Straps. Complies with the following:
a. Coated steel
b. 1.0" wide
c. Structural Steel Grade 50 per ASTM C 653
d. Exposed color to match vapor barrier
1) White
e. Backing – gray
7. Thermal breaks
a. Closed cell polyethylene foam tape for wall applications. Complies with the following:
1) 0.125" thick to 0.375" thick
2) 3.0" wide
b. Thermal spacer blocks. Complies with the following:
1) Extruded or expanded polystyrene
2) Minimum width 3.0"
3) Thickness 0.5" – 1.0"
8. Light gage steel fasteners
a. Zinc plated cold forged steel
b. Head color to match vapor barrier
1) White
c. Contain rubber sealing washer
9. Heavy gage steel fasteners
a. Zinc plated cold forged steel
b. Head color to match vapor barrier
1) White

c. Contain rubber sealing washer

10. Insulation Hangars
    a. Insul-hold insulation hangars

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine the areas and conditions under which work of this section will be installed. Verify that adjacent materials are dry and ready to receive insulation. Verify structure, bracing, and concealed building systems have been tested and inspected.
B. Provide written report listing conditions detrimental to performance of work in this section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install liner system in accordance with manufacturer's installation instructions and approved Shop Drawings.
B. Purlin and girt attachment surfaces should be clean and dry prior to attaching two-faced tape or sealing adhesive.
C. Installed fiberglass insulation should fit snugly against purlin and girt walls in the cavity space. Avoid gaps, voids and any excess compression.

3.3 CLEANING

A. Clean dirt from vapor barrier fabric using a soft cloth with soap and water or non-abrasive household cleaner. Solvent-based cleaners and abrasive pads should be avoided.

3.4 SAFETY PRECAUTIONS

A. Installation contractor must have a site-specific safety plan and comply with all OSHA applicable local rules and regulations when installing this system.
B. Workers must use OSHA required fall protection when installing the banded liner system at heights (see OSHA regulations at 29 CFR 1926, Subpart M).
C. Banding has sharp edges and cut proof gloves should be worn when handling.

3.5 APPENDIX

A. Refer to the Owens Corning publications listed below for product information, including uses, descriptions, physical properties, performance, specification compliance and application recommendations. Copies of these documents can be found at www.owenscorning.com.
    1. OptiLiner® Banded Liner System Product Data Sheet – Owens Corning Publication 10011681
    2. OptiLiner® Wall Installation Instructions – Owens Corning Publication 10011266
    3. OptiLiner® Roof Installation Instructions – Owens Corning Publication 10011267
    4. OptiLiner® Bi-Directional Banding Option – Owens Corning Publication 10011602

END OF SECTION

SECTION 072119

FOAMED-IN-PLACE MASONRY WALL INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Extent of insulation work is shown on drawings and indicated by provisions of this section.
B. Applications of insulation specified in this section include the following:
1. Foamed-In-Place masonry insulation for thermal, sound and fire resistance values.

1.2 SUBMITTALS

A. Product and technical presentation as provided by the manufacturer.
B. Certified Test Reports: With product data, submit copies of certified test reports showing compliance with specified performance values, including R-values, fire performance and sound abatement characteristics.
C. Material Safety Data Sheet: Submit Material Safety Data Sheet complying with OSHA Hazard Communication Standard, 29 CRF 1910 1200.

1.3 QUALITY ASSURANCE

A. Manufacturing Standards: Provide insulation produced by a single and approved manufacturer. The product must come from the manufacturer pre-mixed to ensure consistency.
B. Installer Qualifications for Foamed-In-Place Masonry Insulation: Engage an experienced dealer/applicator who has been trained and licensed by the product manufacturer and which has not less than three years direct experience in the installation of the product used.
C. Warranty: Upon request, a one year product and installation warranty will be issued by both the manufacturer and installer.
D. Fire Performance Characteristics: Provide insulation materials which are identical to those whose fire performance characteristics, as listed for each material or assembly of which insulation is a part, have been determined by testing, per methods indicated below, by a testing agency acceptable to authorities having jurisdiction.
1. **Product must be classified by Underwriters Laboratory ("UL") as to Surface Burning Characteristics**
2. Surface Burning Characteristics: ASTM E-84

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Manufacturers of Foamed-In-Place Masonry Insulation: Subject to compliance with requirements, provide products from the following:
1. **"*Core-Fill 500*TM"**; Tailored Chemical Products, P.O. Box 4186, Hickory, N.C. 28603, (800) 627-1687
2. No substitutions allowed.

2.2 INSULATING MATERIALS

A. General: Provide insulating materials which comply with requirements indicated for materials, compliance with referenced standards, and other characteristics.

B. Foamed-In-Place Masonry Insulation: Two component thermal insulation produced by combining a plastic resin and catalyst foaming agent surfactant which, when properly ratioed and mixed, together with compressed air produce a cold-setting foam insulation in the hollow cores of hollow unit masonry walls.
   1. Surface Burning Characteristics: Maximum flame spread, smoke developed and fuel contributed of 0, 5 and 0 respectively.
   2. Combustion Characteristics: Must be noncombustible, Class A building material.
   3. Thermal Values: "R" Value of 4.91/inch @ 32 degrees F mean; ASTM C-177.
   4. Sound Abatement: Minimum Sound Transmission Class ("STC") rating of 53 and a minimum Outdoor Indoor Transmission Class ("OITC") rating of 44 for 8" wall assembly (ASTM E 90-90).

PART 3 - EXECUTION

3.1 INSPECTION AND PREPARATION

A. Application Assemblies:
   1. Block Walls: 6", 8", 10" or 12" concrete masonry units

3.2 INSTALLATION OF FOAMED-IN-PLACE INSULATION

A. General: Install foamed-in-place insulation from interior, or as specified, prior to installation of interior finish work and after all masonry and structural concrete work is in place; comply with manufacturer's instructions.

B. Installation: Fill all open cells and voids in hollow concrete masonry walls where shown on drawings. The foam insulation shall be pressure injected through a series of 5/8" to 7/8" holes drilled into every vertical column of block cells (every 8" on center) beginning at an approximate height of four (4) feet from finished floor level. Repeat this procedure at an approximate height of ten (10) feet above the first horizontal row of holes (or as needed) until the void is completely filled. Patch holes with mortar and score to resemble existing surface.

END OF SECTION

SECTION 072120

THERMAL BATT INSULATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Batt insulation and vapor retarder in exterior wall construction.
B. Batt insulation for filling perimeter window and door shim spaces and crevices in exterior wall and roof.

1.02 RELATED REQUIREMENTS

A. Section 092216 - NON-STRUCTURAL METAL FRAMING

1.03 REFERENCE STANDARDS

A. ASTM C 665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2006.
B. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2008.

1.04 SUBMITTALS

A. See Section 013000 - SUBMITTAL REQUIREMENTS, for submittal procedures.
B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.
C. Manufacturer's Installation Instructions: Include information on special environmental conditions required for installation and installation techniques.

1.05 FIELD CONDITIONS

A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

1.06 SEQUENCING

A. Sequence work to ensure fireproofing and firestop materials are in place before beginning work of this section.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Insulation: 1. Substitutions: See Section 01600 - Product Requirements.

2.02 APPLICATIONS

A. Insulation in Metal Framed Walls: Batt insulation with integral vapor retarder.

2.03 BATT INSULATION MATERIALS

A. Batt Insulation: ASTM C 665; preformed batt; friction fit, conforming to the following:
   1. Material: Rock or slag fiber, not glass fiber.

2. Flame Spread Index: 25 or less, when tested in accordance with ASTM E 84.
3. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E 84.
4. Combustibility: Non-combustible, when tested in accordance w/ ASTM E 136, except for facing, if any.
5. Formaldehyde Content: Zero.
6. Thermal Resistance: R of 19.
7. Facing: Aluminum foil, flame spread 25 rated; one side.
8. Facing: Faced on one side with aluminum foil scrim with flame spread rating of 25.
9. Manufacturers:
   a. CertainTeed Corporation: www.certainteed.com.
   b. Johns Manville Corporation: www.jm.com.
   c. Owens Corning Corp: www.owenscorning.com.
10. Substitutions: See Section 01600 - Product Requirements.

2.04 ACCESSORIES

A. Tape: Bright aluminum self-adhering type, mesh reinforced, 2 inch wide.
B. Adhesive: Type recommended by insulation manufacturer for application.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation and adhesive.
B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BATT INSTALLATION

A. Install insulation and vapor retarder in accordance with manufacturer's instructions.
B. Install in exterior wall and roof spaces without gaps or voids. Do not compress insulation.
C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
E. Install with factory applied vapor retarder membrane facing warm side of building spaces. Lap ends and side flanges of membrane over framing members.
F. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.
G. Install foil face-up in plenum situations.
H. At metal framing, place vapor retarder on warm side of insulation; lap and seal sheet retarder joints over member face.
I. Tape seal tears or cuts in vapor retarder.
J. Extend vapor retarder tightly to full perimeter of adjacent window and doorframes and other items interrupting the plane of the membrane. Tape seal in place.

3.03 PROTECTION

A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION

SECTION 072216

ROOF BOARD INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section IncludesExtruded polystyrene roof board insulation.

1.2 SUBMITTALS

A. Product Data: Submit data on product characteristics, performance criteria, and limitations, including installation instructions.
B. Sustainable Design: Submit manufacturer's sustainable design certifications as indicated.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: The installation work of this Section shall be performed by an experienced roofing contractor approved and certified by the roofing system manufacturer.
B. Each insulation board must be labeled with manufacturer's name, product brand name, ASTM material specification reference, and identification of the third party inspection agency used for building code qualification.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's original packaging.
B. Store and protect products in accordance with manufacturer's instructions. Store in a dry area and protect from water, direct sunlight, flame, and ignition sources. Do not install insulation that has been damaged or wet.
   1. In the event the board insulation becomes wet, wipe dry prior to installation.

1.5 PROJECT CONDITIONS

A. Roof deck shall be free of ponded water, ice or snow. This precaution is to discourage potential future condensation on the underside of the membrane.
B. Do not expose insulation to surfaces such as vent stacks, pipes or other rooftop appurtenances whose constant temperature is in excess of 165°F.
C. When insulation is to be exposed to sunlight for prolonged periods due to job site delays, protect the insulation with a light colored opaque covering. Provisions should be made to prevent wind loss of insulation materials at the job site when partially open units of are on hand.
D. Dark membrane ballasted systems must have ballast installed immediately after installation of membrane. This precaution is required to prevent potential damage to the insulation from excessive heat due to prolonged exposure to sunlight
E. Roofs exposed to chemical discharge, or to reflective vertical surfaces adjacent to the roof, require special consideration. Consult this specification for recommendations regarding system components.
F. Any deteriorated decking shall be repaired or replaced.

1.6 WARRANTY

A. A thermal performance warranty shall be issued to the Owner upon completion of the work. Insulation shall be warranted to retain all physical properties and a minimum of 90% of its published R-value for the lifetime of the product.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Owens Corning Insulating Systems, LLC, Toledo, OH: www.owenscorning.com.
B. R-MAX Operating LLC, Dallas, TX; www.rmax.com
C. Carlisle Coatings and Waterproofing, Wylie, TX; www.carlisle-ccw.com

2.2 MATERIALS

A. Extruded Polystyrene (XPS) Insulation:
   1. Physical Properties: THERMAPINK® 25; closed-cell foam panels with continuous as-extruded skin on the face and back surfaces, conforming to the minimum physical requirements of ASTM C-578, Type [X, IV, VI, VII].
   2. Product Criteria:
      a. ASTM C578 type [X, IV, VI, VII], certified by independent third party such as RADCO.
      b. Blowing Agent Formulation: Zero ozone depleting.
      c. Compressive Strength (ASTM D 1621): [15, 25, 40,60] psi, minimum.
      d. Edge Condition: Square edge.
      e. Thermal Resistance (180 day real-time aging as mandated by ASTM C 578, measured per ASTM C 518 at mean temperature of 75F): [R-5.0, 5.6] per inch of thickness, with 90% lifetime limited warranty on thermal resistance.
      f. Water Absorption (ASTM C272): Maximum [0.10] percent by volume.
      g. Surface Burning Characteristics (ASTM E 84): Flame spread less than 25, smoke developed less than 450, certified by independent third party such as Underwriters Laboratories (UL).
      h. Warranty: Limited lifetime warranty covering all ASTM C578 physical properties.
   3. Manufacturers: Subject to compliance with product criteria, the manufacturers whose products may be incorporated into the work include but are not limited to:
      a. DiversiFoam Products.
      b. Dow Chemical Company.
      c. Owens Corning.
      d. Pactiv Corporation.
   4. Panel Size: Provide 1” thick by 4 ft. wide by 8 ft. long.
B. [Insulation Fasteners and Stress Plates]: Furnished by membrane manufacturer. FM approved. Fastener head shall be designed to inhibit damage to the membrane. Minimum 3" diameter or square insulation stress plates shall provide for countersunk fastener heads.
C. [Thermal Barrier Material]: Provide one of the following:
   1. Gypsum Board: 1/2" (minimum thickness)
D. [Overlayment]: For dark mechanically attached, any color fully adhered, or chemically incompatible membranes, provide the following:
   1. [Flexible glass fiber, nonwoven, non-flammable, corrosion and mildew resistant or other suitable separator (overlayment) sheets shall be used under PVC membranes and other such membranes which contain plasticizing agents. Separator sheet shall have been evaluated and approved by the membrane manufacturer for adequacy as a separator.]
E. Membrane Fastening or Adhesion System: Per membrane manufacturer’s specifications.

PART 3 - EXECUTION

3.1 ROOF DECK CRITERIA

A. The deck shall be constructed to drain completely free of water within 48 hours following rainfall.
B. The dead load carrying capability of the deck must be sufficient to support code mandated live loads and dead loads incident on the roof including the entire roof covering/insulation system.

C. The roof deck shall be prepared to provide adequate support for the insulation.

3.2 ROOF DECK PREPARATION

A. [Any deteriorated roof decking shall be repaired or replaced].
B. A thorough inspection should be required in the case of total tear off.
C. [Steel Roof Decking]: Install a thermal barrier between THERMAPINK® and the steel deck in accordance with construction drawings.
D. THERMAPINK® insulation may be installed directly over steel roof deck in accordance with the details of UL Roof Deck Construction #457,

3.3 VAPOR RETARDER

A. Install a vapor retarder in accordance with construction drawings. Place the vapor retarder to insure adequate end and side joint laps. When high relative humidities inside the building or other normal climatic conditions create a condensation point within the insulation board, it may be necessary to install a vapor retarder beneath the insulation or thermal barrier. Although THERMAPINK® insulation has vapor retarding qualities, the need for more effective vapor retarding layers must be accessed based on the conditions present on each project THERMAPINK® insulation is compatible with most commonly used asphaltic and sheet film vapor retarding materials. See the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Handbook of Fundamentals for specific design guidelines.)

3.4 INSULATION

A. Total roof insulation aged thermal resistance shall be R-30, achieved in the thicknesses and number of layers as shown in the construction documents. R-value chosen is to be specified based on the intended use of each project and design criteria of each project and applicable energy conservation codes. Contact an Owens Corning representative for information regarding ASHRAE 90.1 Energy Code minimum requirements for roof insulation if needed.
B. Insulation joints shall not exceed 1/4" in width. Joints wider than 1/4" shall be filled with the same insulation.
C. Insulation shall be field trimmed to fit tightly around roof protrusions and terminations.
D. Apply only as much THERMAPINK®, roof insulation as can be covered by the roofing membrane on the same day. Apply roof insulation in parallel rows with end joints staggered. Install side and end joints closely but do not force together. In a two layer application, apply second layer panels parallel to the first layer but with side and end joints staggered in relation to the first layer.
E. Place the THERMAPINK®, board with the printed logo surface down so that the black lettering is not exposed to potential solar heat gain.
F. in areas where black/dark membranes are used and where "reflected solar energy" is expected to be present, THERMAPINK® needs protection in addition to normally specified cover boards. For example, roof areas adjacent to higher walls, particularly walls with reflective surfaces, or near large rooftop HVAC units, or near or in between clusters of mechanical equipment, or near other structures with reflective cladding (metal or glass); or near higher reflective parapets, all such areas should be considered for additional heat protection. Such roof areas must be covered with pavers or ballast. Black/dark (non-white) membranes must be coated with white reflective topping, and maintained white, to avoid damage due to the intensified heat exposure from reflected sun in such areas.

3.5 OVERLAYMENT

A. Only dry overlayment materials shall be used. If overlayment materials become wet, allow them to fully dry before proceeding with roofing application. Requirements for overlayment materials and thickness may vary. Contact membrane manufacturer for their individual requirements.
B. [Rigid overlayment shall be [mechanically attached, adhered with a suitable adhesive] per manufacturer's recommendations.]

1. Mechanical fastening of insulation and rigid overlayment may coincide so that fastener penetrates overlayment and THERMAPINK® or FOAMULAR® into the structural substrate the minimum distance prescribed for adequate wind uplift resistance by the fastener manufacturer.
2. [Loose lay flexible sheet overlayment over [THERMAPINK®, FOAMULAR®] and cover with a membrane attached per the manufacturer's recommendations. Edges and ends of rolls shall be lapped a minimum of 6".]

C. When cleaning agents and seam adhesives used are solvent based and capable of causing cavitations of the underlying [THERMAPINK®, FOAMULAR®] insulation, use care when preparing membrane edges for in-field seam splicing.

3.6 MECHANICAL FASTENERS

A. Fastener/stress plate assemblies shall be driven to tightly secure the insulation board and seat the plate but shall not be overdriven so that the THERMAPINK®, board is crushed beneath the plate.
B. Fasteners which are improperly installed shall be removed or corrected. Improper installation may include overdriving such that the stress plate is concave and cuts a significant depression in the insulation: under driving such that the fastener head Is not properly seated in the stress plate and may puncture the membrane: broken or bent shanks: improper location: or insufficient length.
C. Fasteners shall be embedded in the deck per manufacturer's recommendations to insure adequate withdrawal resistance.
D. THERMAPINK® shall be secured with [12] fasteners and 3" diameter stress plates per 4x8 board.
   1. Four fasteners minimum, (install 2 to 4 more to insure greater flatness) one 6” in from the edges of each corner, are required when THERMAPINK® insulation is installed under white membranes with or without a slip-sheet.

END OF SECTION

SECTION 072400
EXTERIOR INSULATION & FINISH SYSTEM (EIFS)

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Manufacturer's requirements for the proper design, use, and installation of an Exterior Insulation and Finish System.

1.2 RELATED SECTIONS

A. Section 03 30 00 - Cast-in-Place Concrete
B. Section 06 16 00 - Sheathing
C. Section 07 62 00 - Sheet Metal Flashing and Trim
D. Section 07 90 00 - Joint Protection
E. Section 08 50 00 - Windows
F. Section 09 21 16 - Gypsum Board Assemblies

1.3 REFERENCES

A.	ASTM B117	Test Method for Salt Spray (Fog) Testing
B.	ASTM C1135	Test Method for Determining Tensile Adhesion Properties of Structural Sealants
C.	ASTM D968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
D.	ASTM D1037	Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials
E.	ASTM D2247	Practice for Testing Water Resistance of Coatings in 100 Percent Relative Humidity
F.	ASTM D2294	Standard Test Method for Creep Properties of Adhesives in Shear by Tension Loading (Metal-to-Metal).
G.	ASTM D2794	Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
H.	ASTM D3273	Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
I.	ASTM E84	Test Method for Surface Burning Characteristics of Building Materials.
J.	ASTM E108	Standard Test Methods for Fire Tests of Roof Coverings
K.	ASTM E119	Standard Test Method for Fire Tests of Building Construction and Materials.
L.	ASTM E330	Test Method for Structural Performance by Uniform Static Air Pressure Difference.
M.	ASTM E331	Test Method for Water Penetration by Uniform Static Air Pressure Difference.
N.	ASTM E695	Method for Measuring Relative Resistance to Impact Loading.
O.	ASTM E2134	Standard Test Method for Evaluating the Tensile-Adhesion Performance of an Exterior Insulation and Finish System (EIFS)
P.	ASTM E2430	Standard Specification For Expanded Polystyrene ("EPS") Thermal Insulation Boards For Use In Exterior Insulation and Finish Systems ("EIFS")
Q.	ASTM E2485	Standard Test Method for Freeze/Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water Resistive Barrier Coatings
R.	ASTM E2486	Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
S.	ASTM E2568	Standard Specification for PB Exterior Insulation Finish Systems.
T.	ASTM G155/	Accelerated Weathering for Exposure of Nonmetallic Materials.
U.	NFPA 259	Test Method for Potential Heat of Building Materials.
V.	NFPA 268	Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source.
W.	NFPA 285	Standard Method of Test for the Evaluation of Flammability characteristics of Exterior Nonload-bearing Wall Assemblies Containing Combustible Components Using the Intermediate-scale, Multistory Test Apparatus.

1.4 ASSEMBLY DESCRIPTION

A. Optimum Class PB Exterior Insulation and Finish System (EIFS): Adhesive, Expanded Polystyrene Insulation (EPS) Board, Optimum Base Coat with embedded Reinforcing Fabric Mesh, Primer (Optional), and Optimum Finish Coat. This system is installed over glass mat gypsum sheathing, cement board sheathing, CDX plywood, Exposure 1, OSB, concrete or CMU. For OSB restrictions see *EIFS* manufacturer's *Acceptable Substrates and Areas of Use Technical Bulletin.*

B. Functional Criteria:
   1. General:
      a. Insulation Board: At system termination, completely encapsulate insulation board edges by mesh reinforced base coat. The use of and maximum thickness of insulation board shall be in accordance with applicable building codes and EIFS manufacturer's requirements.
      b. Flashing: Flashing shall be continuous and watertight. Flashing shall be designed and installed to prevent water infiltration behind the cladding. Refer to Division 07 Flashing Section for specified flashing materials.
      c. See Current ICC Evaluation Service Report or contact EIFS manufacturer's Technical Department for design windloads.
      d. Inclined surfaces shall follow the guidelines listed below:
         (1) Minimum slope: 6 in (152 mm) of vertical rise in 12 in (305 mm) of horizontal run.
         (2) For sloped surfaces, run of slope shall be a maximum of 12 in (305 mm).
         (3) Usage not meeting above criteria shall be approved in writing prior to installation.
      e. The building interior shall be separated from the insulation board by 1/2 in (12.7 mm) of gypsum board or equivalent 15 minute thermal barrier.
   2. Performance Requirements
      a. System to meet the performance and testing requirements of the International Code Council Acceptance Criteria AC 219
      b. Shall meet the testing requirements of the Product Performance Sheet.
   3. Substrate Systems:
      a. Shall be engineered to withstand applicable design loads including required safety factor.
      b. Maximum deflection of substrate system under positive or negative design loads shall not exceed L/240 of span.
      c. Substrate dimensional tolerance: Flat within 1/4 in (6.4 mm) in any 4 ft (122 cm) radius.
      d. Surface irregularities: Sheathing not over 1/8 in (3 mm); masonry not over 3/16 in (4.8 mm).
   4. Impact Resistance Classification:
      a. Medium Impact Resistance, 50-89 in-lbs (5.7–10.1 J) Impact Range
   5. Expansion Joints: Continuous expansion joints shall be installed at the following locations in accordance with manufacturer's recommendations:
      a. At building expansion joints.
      b. At substrate expansion joints.
      c. Where EIFS panels abut one another.
      d. Where EIFS abuts other materials.
      e. Where significant structural movement occurs, such as at
         (1) Changes in roof line.
         (2) Changes in building shape and/or structural system.
      f. Where substrate changes
      g. Substrate movement and expansion and contraction of EIFS and adjacent materials shall be taken into account in design of expansion joints, with proper consideration given to sealant properties, installation conditions, temperature range, coefficients of expansion of materials, joint width to depth ratios, and other material factors. Minimum width of expansion joints shall be as follows:
         (1) 1/2 in (12.7 mm) where EIFS abuts other materials.
         (2) 3/4 in (19 mm) when EIFS abuts the EIFS.
         (3) Larger width where indicated on drawings.

6. Manufacturer's Detail:
   a. EIFS latest published information shall be followed for standard detail treatments.
   b. Non-standard detail treatments shall be as recommended by manufacturer, approved by Project Designer and be part of the Contract Documents.
7. Building Code Conformance: EIFS shall be acceptable for use on this project under building code having jurisdiction.

1.5 SUBMITTALS

A. General: Submit Samples, Evaluation Reports, warranties and Certificates in accordance with Division 01 General Requirements Submittal Section.

1.6 QUALITY ASSURANCE

A. Qualifications:
   1. All EIFS assembly materials must be manufactured or sold by a single-source manufacturer and must be purchased direct from the manufacturer or its authorized distributor.
   2. Applicator:
      a. Must have attended manufacturer's Educational Seminar.
      b. Must possess a current manufacturer's certificate of education.
      c. Must be experienced and competent in installation of plaster-like materials.
B. Regulatory Requirements:
   1. Insulation Board: Shall be produced and labeled under a third party quality program as required by applicable building code.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver materials in original packaging with manufacturer's identification.
B. Storage: Store materials in a cool, dry location, out of sunlight, protected from weather and other harmful environment, and at a temperature above 40°F (4°C) and below 110°F (43°C) in accordance with manufacturer's instructions.

1.8 PROJECT / SITE CONDITIONS

A. Installation Ambient Air Temperature: Minimum of 40°F (4°C) and rising, and remain so for 24 hours thereafter.
B. Substrate Temperature: Do not apply materials to substrates whose temperature are below 40°F (4°C) or contain frost or ice.
C. Inclement Weather: Do not apply materials during inclement weather unless appropriate protection is employed.
D. Sunlight Exposure: Avoid, when possible, installation of the materials in direct sunlight. Application of Acrylic Finishes in direct sunlight in hot weather may adversely affect aesthetics.
E. Materials shall not be applied if ambient temperature exceeds 120°F (49°C) or falls below 40°F (4°C) within 24 hours of application. Protect materials from uneven and excessive evaporation during hot, dry weather.

F. Prior to installation, the wall shall be inspected for surface contamination, or other defects that may adversely affect the performance of the materials and shall be free of residual moisture.

1.9 COORDINATION AND SCHEDULING:

A. Coordination: Coordinate water-resistive membrane & air barrier coating materials installation with other construction operations.

1.10WARRANTY

A. Warranty: Upon request, at completion of installation, provide manufacturer's Standard Limited Warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer, Basis of Design: Parex USA, Inc., 4125 E. La Palma Ave., Suite 250, Anaheim, CA 92807 Contact: Architectural Sales (866.516.0061) or Technical Support (800.226.2424).
B. Components: Obtain components from authorized distributors. No substitutions or additions of other materials are permitted without prior written permission from the EIFS manufacturer for this project.

2.2 MATERIALS

A. Adhesives
   1. Parex 303 Sheathing Adhesive: 100% acrylic polymer based; ready to use, applied without the addition of cement; used as an adhesive to laminate EPS Insulation Board to gypsum sheathing, glass mat gypsum sheathing and wood based sheathing.
B. Insulation Board: In compliance with manufacturer's requirements for Standard System EIFS.
   1. Produced and labeled under a third party quality program as required by applicable building code; and produced by a manufacturer approved by Parex USA.
   2. Shall conform to ASTM C578 and ASTM E2430, Type I and the Parex USA specification for Molded Expanded Polystyrene Insulation board.
   3. Maximum size shall be 2 ft x 4 ft (610 mm x 1219 mm).
   4. Thickness: 3/4 in, minimum (19 mm) after rasping.
C. Base Coats:
   1. 302 ABC-N1 Base Coat & Adhesive: 100% acrylic polymer base, ready to use, applied without the addition of cement.
D. Reinforcing Mesh:
   1. 358.10 Intermediate Impact 10 Mesh: Weight 12 oz per sq. yd. (407 g/sq m) Reinforcing mesh used with a Standard System, to achieve ASTM E2486 intermediate impact strength.
E. Primer:
   1. Parex USA Primer: 100% acrylic based coating to prepare surfaces for acrylic or elastomeric finishes.
F. Finish
   1. Parex DPR Optimum Finish: Factory blended, 100% acrylic polymer based finish, integrally colored. Finish type, texture and color as selected by Project Designer
      [a. Parex USA ColorFast Pigments System: Fade resistant pigment system offering superior fade resistance; factory tinted only; used-with any Parex USA acrylic or elastomeric finish or coating.
   2. Parex USA Clear Sealer: 100% acrylic, transparent, permeable, dirt resistant sealer for use as a protective coating over acrylic finishes. Use 600 Clear or 610 Matte Clear as detailed on drawings.
G. Water: Clean, cool, potable water
H. Portland Cement: ASTM C150, Type I or Type I-II.

2.3 RELATED MATERIALS AND ACCESSORIES

A. Substrate Materials:
   1. Glass mat gypsum sheathing conforming to ASTM C1177.
   2. Plywood: Minimum 7/16 in (8 mm) thick exterior grade or PS 1, Exposure 1, minimum 7/16 in thick, C veneer facing out, panels gapped 1/8 in at all edges.
B. Flashing: Refer to Division 07 Flashing Section for flashing materials.
C. Sealant System:
   1. Sealant for expansion joints between panelized EIFS sections shall be ultra-low modulus designed for minimum 100% elongation and minimum 50% compression and as selected by Project Designer.

2. Sealant for perimeter seals around window and door frames and other wall penetrations shall be low modulus, designed for minimum 50% elongation and minimum 25% compression, and as selected by Project Designer.
3. Sealants shall conform to ASTM C 920, Grade NS.
4. Expansion joints between sections of EIFS shall have a minimum width of 3/4 in (19 mm).
5. Perimeter seal joints shall be a minimum width of 1/2 in (12.7 mm).
6. Sealant backer rod shall be closed-cell polyethylene foam.
7. Apply sealant to tracks or base coat of EIFS.
8. Refer to EIFS manufacturer's current bulletin for listing of sealants which have been tested and have been found to be compatible with EIFS materials.
9. Color shall be as selected by Project Designer.
10. Joint design, surface preparation, and sealant primer shall be based on sealant manufacturer's recommendations and project conditions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify project site conditions under provisions of Section 010000.
B. Compliance: Comply with manufacturer's instructions for installation.
C. Substrate Examination: Examine prior to installation of EIFS assembly materials as follows:
   1. Substrate shall be of a type approved by manufacturer. Plywood and OSB substrates shall be gapped 1/8 in (3.2 mm) at all edges.
   2. Substrate shall be examined for soundness, and other harmful conditions.
   3. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.
   4. Substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.
D. Sealants and Backer Rod: To be installed, where required, in accordance with the sealant manufacturer's specifications and published literature, and using the sealant manufacturer's recommended primers.
E. Advise Contractor of discrepancies preventing proper installation of the EIFS materials. Do not proceed with the work until unsatisfactory conditions are corrected.

3.2 PREPARATION

A. Protection: Protect surrounding material surfaces and areas during installation of system.
B. Clean surfaces thoroughly prior to installation.
C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 MIXING

A. Mix materials in accordance with manufacturer's instructions.

3.4 APPLICATION

A. General: Installation shall conform to this specification and manufacturer's written instructions.
B. Insulation Board
   1. Install back-wrap mesh or edge-wrap mesh at system terminations.
   2. Apply EIFS adhesive to backs of insulation boards with a notched trowel, with ribbons of adhesive oriented in a vertical direction (parallel to the 2 ft (61 mm) dimension of the EPS board).
   3. Install insulation board without gaps in a running bond pattern and interlocked at corners.
   4. Rasp irregularities off insulation board after adhesive has dried a minimum of 24 hours.

C. Apply base coat and fully embed mesh in base coat; include diagonal mesh patches at corners of openings and reinforcing mesh patches at joints of track sections. Apply multiple layers of base coat and mesh where required for specified impact resistance classification.
D. Apply primer to base coat after drying. Primer may be omitted if it is not required by the manufacturer's product data sheets for the specified finish coat or otherwise specified for the project.
E. Finish Coat: Apply finish coat to match specified finish type, texture, and color. Do not apply finish coat to surfaces to receive sealant. Keep finish out of sealant joint gaps.

3.5 CLEAN-UP

A. Removal: Remove and legally dispose of EIFS materials from job site.
B. Clean surfaces and work area of foreign materials resulting from material installation.

3.6 PROTECTION

A. Provide protection of installed materials from water infiltration into or behind them.
B. Provide protection of installed materials from dust, dirt, precipitation, and freezing during installation, and continuous high humidity until fully cured and dry.
C. Clean exposed surfaces using materials and methods recommended by the manufacturer of the material or product being cleaned. Remove and replace work that cannot be cleaned to the satisfaction of the Project Designer/Owner.

END OF SECTION

SECTION 072500

WEATHER BARRIERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Vapor Barriers: Materials to make substrate under wood flooring areas water vapor-resistant and airtight and to seal gaps between window/door frames and exterior backing wall.
B. Air Barriers: Materials to stop passage of air through exterior walls, joints between exterior walls and roof, and joints around frames of openings in exterior walls.

1.2 DEFINITIONS

A. Weather Barrier: Assemblies that form either water-resistive barriers, air barriers, vapor retarders, or water-resistive barriers.
B. Air Barrier: Air-tight barrier made of material that is relatively air impermeable but water vapor permeable, both to the degree specified, with sealed seams and with sealed joints to adjacent surfaces.
C. Vapor Retarder: Air-tight barrier made of material that is relatively water vapor impermeable, to the degree specified, with sealed seams and with sealed joints to adjacent surfaces.
   1. Water Vapor Permeance: For purposes of conversion, 57.2 ng/(Pa s sq m) = 1 perm.
D. Water-Resistive Barrier: Water-shedding barrier made of material that is moisture-resistant, to the degree specified, intended to be installed to shed water without sealed seams.

1.3 REFERENCE STANDARDS

A. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension; 2006a.
B. ASTM D 1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2001.
C. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2008.
D. ASTM E 96/E 96M - Standard Test Methods for Water Vapor Transmission of Materials; 2005.
E. ASTM E 2178 - Standard Test Method for Air Permeance of Building Materials; 2003.

1.4 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data on material characteristics.
C. Shop Drawings: Provide drawings of special joint conditions.
D. Manufacturer's Installation Instructions: Indicate preparation.

1.5 MOCK-UP

A. Install air barrier and vapor retarder materials in separate mock-ups.

1.6 FIELD CONDITIONS

A. Maintain temperature and humidity recommended by the materials manufacturers before, during and after installation.

PART 2 - PRODUCTS

2.1 WEATHER BARRIER ASSEMBLIES

A. Air Barrier:
1. On outside surface of inside wythe of exterior masonry cavity walls use air barrier coating.
2. On outside surface of sheathing of exterior walls use air barrier sheet, mechanically fastened type.

2.2 AIR BARRIER MATERIALS (WATER VAPOR PERMEABLE AND WATER-RESISTIVE)

A. Air Barrier Membrane: Cold-fluid-applied, vapor permeable, elastomeric waterproofing membrane.
1. Material: Water-based rubberized elastomeric membrane, 100 grams/liter max. VOC content.
2. Acceptable Substrates: Stated by manufacturer as suitable for installation on damp surfaces and green concrete without requiring a primer.
3. Adhesion to Paper and Glass Mat Faced Sheathing: Sufficient to ensure failure due to delamination of sheathing.
4. Dry Film Thickness: 40 mils (0.040 inch), minimum.
5. Air Permeance: 0.004 cubic feet per square foot, maximum, when tested in accordance with ASTM E 2178.
6. Water Vapor Permeance: 20 perms, minimum, when tested in accordance with ASTM E96/E 96M.
7. Ultraviolet and Weathering Resistance: Approved in writing by manufacturer for minimum of 6 months weather exposure.
8. Elongation: 600 percent, minimum, when tested in accordance with ASTM D 412
9. Surface Burning Characteristics: Flame spread index of 25 or less, smoke developed index of 50 or less, when tested in accordance with ASTM E 84.
10. Products:
a. Basis of design is Henry Company; Air-Bloc 31: www.henry.com. b. Substitutions: See Section 01600 - Product Requirements.

2.3 VAPOR RETARDER MATERIALS

A. Vapor Retarder Sheet: Rubberized asphalt bonded to sheet polyethylene, self-adhesive, complying with ASTM D 1970.
1. Thickness: 45 mil, nominal.
2. Water Vapor Permeance: 0.1 perm, maximum, when tested in accordance with ASTM E 96/E 96M.

2.4 SEALANTS

A. Primers, Cleaners, and Other Sealant Materials: As recommended by sealant manufacturer, appropriate to application, and compatible with adjacent materials.

2.5 ACCESSORIES

A. Self-Adhesive Sheet Flashing: ASTM D 1970.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that surfaces and conditions are ready to accept the work of this section.

3.2 PREPARATION

A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.

3.3 INSTALLATION

A. Install materials in accordance with manufacturer's instructions.
B. Air Barriers: Install continuous air-tight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
C. Vapor Retarders: Install continuous air-tight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
D. Apply sealants and adhesives within recommended application temperature ranges. Consult manufacturer if temperature is out of this range.
E. Self-Adhesive Sheets:
    1. Prepare substrate in manner recommended by sheet manufacturer; fill and tape joints in substrate and between dissimilar materials.
    2. Lap sheets shingle-fashion to shed water and seal laps air-tight.
    3. Use same material, or other material approved by sheet manufacturer for the purpose, to seal to adjacent construction and as flashing.
    4. At wide joints, provide extra flexible membrane allowing joint movement.
F. Coatings:
    1. Prepare substrate in manner recommended by coating manufacturer; fill and tape joints in substrate and between dissimilar materials.
    2. Where exterior masonry veneer is to be installed, install masonry anchors before installing weather barrier over masonry; seal around anchors airtight.
    3. Sprayed Coating: Install to thickness recommended by manufacturer.
    4. Use self-adhesive sheet flashing to seal to adjacent construction and to bridge joints.
G. Openings and Penetrations in Exterior Weather Barriers:
    1. Install self-adhesive flashing over sills, covering entire sill frame member, extending at least 5 inches onto weather barrier and at least 6 inches up jambs; mechanically fasten stretched edges.
    2. At openings to be filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with self-adhesive flashing at least 4 inches wide; do not seal sill flange.
    3. At openings to be filled with non-flanged frames, seal weather barrier to all sides of opening framing, using self-adhesive flashing at least 9 inches wide, covering entire depth of framing.
    4. At head of openings, install self-adhesive flashing under weather barrier extending at least 2 inches beyond face of jambs; seal weather barrier to flashing.
    5. At interior face of openings, seal gap between window/door frame and rough framing, using joint sealant over backer rod.
    6. Service and Other Penetrations: Form self-adhesive flashing around penetrating item and seal to weather barrier surface.

3.4 FIELD QUALITY CONTROL

A. Do not cover installed weather barriers until required inspections have been completed.

3.5 PROTECTION

A. Do not leave materials exposed to weather longer than recommended by manufacturer.

END OF SECTION

SECTION 074113.13

PREFORMED METAL ROOF PANELS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Architectural roofing system of preformed aluminum panels.
B. Fastening system.
C. Factory finishing.
D. Accessories and miscellaneous components.

1.02 RELATED REQUIREMENTS

A. Section 079200 - JOINT SEALERS AND SEALANT

1.03 REFERENCE STANDARDS

A. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2007.
B. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2008.

1.04 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES
B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Summary of test results, indicating compliance with specified requirements.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
   4. Specimen warranty.
C. Shop Drawings: Include layouts of roof panels and all panel lap joints, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
   1. Show work to be field-fabricated or field-assembled.
D. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
E. Verification Samples: For each roofing system specified, submit samples of minimum size 12 inches square, representing actual roofing metal, thickness, profile, color, and texture.
   1. Include typical panel joint in sample.
   2. Include typical fastening detail.
F. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in the manufacture of roofing systems similar to those required for this project, with not less than 5 years of documented experience.
B. Installer Qualifications: Company trained and authorized by roofing system manufacturer, with at least two years of experience installing same, or similar roofing systems.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Provide strippable plastic protection on prefinished roofing panels for removal after installation.
B. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

1.07 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
B. Finish Warranty: Provide manufacturer's special warranty covering failure of factory-applied exterior finish on metal roof panels and agreeing to repair or replace panels that show evidence of finish degradation, including significant fading, chalking, cracking, or peeling within specified warranty period of 5 year period from date of Substantial Completion.
C. Waterproofing Warranty: Provide manufacturer's warranty for weathertightness of roofing system, including agreement to repair or replace roofing that fails to keep out water within specified warranty period of 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable manufacturers are:
1. MBCI www.mbci.com
2. Petersen Aluminum Corporation www.pac-clad.com
2. FLEXOSPAN www.flexospan.com
2. ATAS International, Inc.: www.atas.com.
3. Substitutions: See Section 01600 - Product Requirements.

2.02 ARCHITECTURAL ROOF PANELS

A. Performance Requirements: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.
B. Metal Roofing: Factory-formed panels with factory-applied finish.
1. Aluminum Panels:
a. Alloy: Aluminum conforming to ASTM B 209/B 209M; temper as required for forming.
b. Thickness: Minimum 0.028 inch.
2. Profile: PBR-Panel, or R-Panel
3. Texture: Smooth.
4. Length: Maximum possible length to minimize lapped joints. Where lapped joints are unavoidable, space laps so that each sheet spans over three or more supports.
5. Width: Maximum panel coverage of 24 inches.

2.03 ATTACHMENT SYSTEM

A. Exposed System: Provide manufacturer's standard anchoring system and accessories.

2.04 PANEL FINISH

A. Fluoropolymer Coating System: Manufacturer's standard multi-coat thermocured coating system, including minimum 70 percent fluoropolymer color topcoat with minimum total dry film thickness of 0.9 mil; color and gloss as selected from manufacturer's standards.

2.05 ACCESSORIES AND MISCELLANEOUS ITEMS

A. Miscellaneous Sheet Metal Items: Provide flashings, trim, moldings, closure strips, preformed crickets, caps, and equipment curbs of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
B. Sealants: As specified in Section 079200.
   1. Exposed sealant must cure to rubber-like consistency.
   2. Concealed sealant must be non-hardening type.
   3. Seam sealant must be factory-applied, non-skinning, non-drying type.

2.06 FABRICATION

A. Panels: Fabricate panels and accessory items at factory, using manufacturer's standard processes as required to achieve specified appearance and performance requirements.
B. Joints: Factory-install captive gaskets, sealants, or separator strips at panel joints to provide weathertight seals, eliminate metal-to-metal contact, and minimize noise from panel movements.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.
B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.
B. Remove protective film from surface of roof panels immediately prior to installation. Strip film carefully, to avoid damage to prefinished surfaces.
C. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by roof panel manufacturer.
D. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

3.03 INSTALLATION

A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.
   1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
   2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.
B. Accessories: Install all components required for a complete roofing assembly, including flashings, trim, moldings, closure strips, preformed crickets, caps, equipment curbs, rib closures, ridge closures, and similar roof accessory items.
C. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.

1. Provide sealant tape or other approved joint sealer at lapped panel joints.
2. Install sealant or sealant tape, as recommended by panel manufacturer, at end laps and side joints.

D. Insulation: Install insulation between roof covering and supporting members to present a neat appearance. Fold, staple, and tape seams unless otherwise approved by Architect.

3.04 CLEANING AND PROTECTION

A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

B. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.

C. Touch-up, repair, or replace damaged roof panels or accessories before date of Substantial Completion.

END OF SECTION

SECTION 074213.13

PREFORMED METAL WALL PANELS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Ribbed-profile, concealed fastener metal wall panels, with related metal trim, and accessories.

1.2 RELATED REQUIREMENTS

A. Division 05 Section "Structural Steel Framing" for steel framing supporting metal panels.
B. Division 05 Section "Cold-Formed Metal Framing" for cold-formed metal framing supporting metal panels.
C. Division 07 Section "Thermal Insulation" for thermal insulation installed behind metal panels.
D. Division 07 Section "Air Barriers" for air barriers within wall assembly and adjacent to wall assembly.
E. Division 07 Section "Sheet Metal Flashing and Trim" for sheet metal flashing items in addition to items specified in this Section.
F. Division 13 Section "Metal Building Systems" for steel framing supporting metal panels.

1.3 REFERENCES

A. American Architectural Manufacturer's Association (AAMA): www.aamanet.org:
   1. AAMA 621 - Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) & Zinc-Aluminum Coated Steel Substrates.
   2. AAMA 809.2 Voluntary Specification Non-Drying Sealants.
B. ASTM International (ASTM): www.astm.org:
   1. ASTM A755 - Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
   2. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
   3. ASTM C920 - Specification for Elastomeric Joint Sealants.
   4. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
   5. ASTM D4214 - Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.
   6. ASTM E283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
   7. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
   8. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.

1.4 QUALITY ASSURANCE

A. Manufacturer/Source: Provide metal panel assemblies and accessories from a single manufacturer accredited under IAS AC472, Part B.
B. Manufacturer Qualifications: Approved manufacturer listed in this Section with minimum five years experience in manufacture of similar products in successful use in similar applications.
   1. Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:
      a. Product data, including certified independent test data indicating compliance with requirements.
      b. Samples of each component.
      c. Sample shop drawings from similar project.

d. Project References: Minimum of five installations not less than three years old, with Owner and Architect contact information.
e. Sample warranty.
f. Certificate of accreditation under IAS AC472 Part B.

2. Substitutions following award of contract are not allowed except as stipulated in Division 01 General Requirements.
3. Approved manufacturers must meet separate requirements of Submittals Article.

C. Installer Qualifications: Experienced Installer with minimum of five years experience with successfully completed projects of a similar nature and scope.
1. Installer's Field Supervisor: Experienced mechanic supervising work on site whenever work is underway.

D. Steel Construction Publications: Comply with published recommendations in the following, unless more stringent requirements are indicated.
1. American Institute of Steel Construction (AISC): "Steel Construction Manual."
2. American Iron and Steel Institute (AISI): "Cold Formed Steel Design Manual."

1.5 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Prior to erection of framing, conduct preinstallation meeting at site attended by Owner, Architect, metal panel installer, metal panel manufacturer's technical representative, inspection agency and related trade contractors.
1. Coordinate building framing in relation to metal panel system.
2. Coordinate openings and penetrations of metal panel system.
3. Coordinate work of Division 07 Sections "Roof Specialties" and "Roof Accessories" and openings and penetrations and manufacturer's accessories with installation of metal panels.

1.6 ACTION SUBMITTALS

A. Product Data: Manufacturer’s data sheets for specified products. Include data indicating compliance with performance requirements.

B. Shop Drawings: Show layouts of metal panels. Include details of each condition of installation, panel profiles, and attachment to building. Provide details at a minimum scale 1-1/2-inch per foot of edge conditions, joints, fastener and sealant placement, flashings, openings, penetrations, and special details. Make distinctions between factory and field assembled work.
1. Indicate points of supporting structure that must coordinate with metal panel system installation.
2. Include structural data indicating compliance with performance requirements and requirements of local authorities having jurisdiction.

C. Samples for Initial Selection: For each exposed product specified including sealants. Provide representative color charts of manufacturer's full range of colors.

D. Samples for Verification: Provide 12-inch long section of each metal panel profile. Provide color chip verifying color selection.

1.7 INFORMATIONAL SUBMITTALS

A. Product Test Reports: Indicating compliance of products with requirements.

B. Qualification Information: For Installer firm and Installer’s field supervisor.

C. IAS Accreditation Certificate: Indicating that manufacturer is accredited under provisions of IAS AC472 Part B.

D. Manufacturer's warranty: Unexecuted sample copy of manufacturer's warranty.

1.8 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Manufacturer's Warranty: Executed copy of manufacturer's warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Protect products of metal panel system during shipping, handling, and storage to prevent staining, denting, deterioration of components or other damage. Protect panels and trim bundles during shipping.
   1. Deliver, unload, store, and erect metal panels and accessory items without misshaping panels or exposing panels to surface damage from weather or construction operations.
   2. Store in accordance with Manufacturer's written instruction. Provide wood collars for stacking and handling in the field.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Basis of Design Manufacturer: **MBCI Metal Roof and Wall Systems, Division of NCI Group, Inc.**; Houston TX. Tel: (877)713-6224; Email: info@mbci.com; Web: www.mbci.com.
   1. Provide basis of design product, or comparable product approved by Architect prior to bid.

2.2 PERFORMANCE REQUIREMENTS

A. General: Provide metal panel system meeting performance requirements as determined by application of specified tests by a qualified testing facility on manufacturer's standard assemblies.
B. Structural Performance: Provide metal panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated, as determined by ASTM E1592:
   1. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed indicated on drawings.
      a. Wind Negative Pressure: Certify capacity of metal panels by actual testing of proposed assembly.
   2. Deflection Limits: Withstand inward and outward wind-load design pressures in accordance with applicable building code with maximum deflection of 1/120 of the span with no evidence of failure.
   3. Seismic Performance: Comply with ASCE 7 Sections 9, "Earthquake Loads."
C. Wall Panel Air Infiltration, ASTM E283:
   1. 0.002 cfm/sq. ft. air infiltration at static-air-pressure difference of 6.24 lbf/sq. ft. (300 Pa).
   2. 0.003 cfm/sq. ft. air infiltration at static-air-pressure difference of 12.00 lbf/sq. ft (575 Pa).
D. Wall Panel Water Penetration Static Pressure, ASTM E331: No uncontrolled water penetration at a static pressure of 20.00 lbf/sq. ft. (958 Pa).
E. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction. Allow for deflection and design for thermal stresses caused by temperature differences from one side of the panel to the other.

2.3 FORMED METAL WALL PANELS

A. Ribbed-Profile, Concealed Fastener Metal Wall Panels: Structural metal panels consisting of formed metal sheet with fastener leg for concealed attachment to wall framing.
   1. Basis of Design: **MBCI, MasterLine 16 Panel.**
   2. Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A792/A792M, structural quality, Grade 50, Coating Class AZ50 (Grade 340, Coating Class AZM150), prepainted by the coil-coating process per ASTM A755/A755M.
      a. Nominal Thickness: 24 gauge coated thickness, with smooth surface.
         1) Exterior Finish: Exposed Galvalume Plus coating.
         2) Color: As selected by Architect from manufacturer's standard colors.
   3. Panel Width: 16 inches (406 mm).
   4. Panel Thickness: 7/8 inch (22 mm).

2.4 MISCELLANEOUS MATERIALS

A. General: Provide complete metal panel assemblies incorporating trim, copings, fasciae, gutters and downspouts, and miscellaneous flashings. Provide required fasteners, closure strips, and sealants as indicated in manufacturer's written instructions.
B. Flashing and Trim: Match material, thickness, and finish of metal panels.
C. Panel Fasteners: Self-tapping screws and other acceptable fasteners recommended by metal panel manufacturer. Where exposed fasteners cannot be avoided, supply corrosion-resistant fasteners with heads matching color of metal panels by means of factory-applied coating, with weathertight resilient washers.
D. Panel Sealants:
   1. VOC Content of Interior Sealants: Sealants used inside the weatherproofing system shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
      a. Architectural Sealants: 250 g/L.
   2. Concealed Joint Sealant: Non-curing butyl, AAMA 809.2.
   3. Elastomeric Joint Sealant: Urethane sealant, single-component, ASTM C920 Type S, Grade NS, Class 25, Use NT, A, M, G, O.
   4. Tape Mastic: Manufacturer's standard butyl type.

2.5 FABRICATION

A. General: Provide factory fabricated and finished metal panels, trim, and accessories meeting performance requirements, indicated profiles, and structural requirements.
B. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's written instructions, approved shop drawings, and project drawings.

2.6 FINISHES

A. Finishes, General: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
B. Modified Silicone-Polyester Two-Coat System: 0.20 – 0.25 mil primer with 0.7 – 0.8 mil color coat
   1. Basis of Design: **MBCI, Signature 200**.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine metal panel system substrate with Installer present. Inspect for erection tolerances and other conditions that would adversely affect installation of metal panels.
   1. Inspect framing that will support insulated metal panels to determine if support components are installed as indicated on approved shop drawings and are within tolerances acceptable to metal panel manufacturer and installer. Confirm presence of acceptable framing members at recommended spacing to match installation requirements of metal panels.
B. Correct out-of-tolerance work and other deficient conditions prior to proceeding with insulated metal panel installation.

3.2 METAL PANEL INSTALLATION

A. Concealed-Fastener Formed Metal Panels: Install metal panel system in accordance with manufacturer's written instructions, approved shop drawings, project drawings, and referenced publications. Install metal panels in orientation, sizes, and locations indicated. Anchor panels and other components securely in place. Provide for thermal and structural movement.

B. Fasten metal panels to supports with fasteners at each location indicated on approved shop drawings, at spacing and with fasteners recommended by manufacturer. Fasten panel to support structure through leading flange. Snap-fit back flange of subsequent panel into secured flange of previous panel.
   1. Cut panels in field where required using manufacturer's recommended methods.
   2. Dissimilar Materials: Where elements of metal panel system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by metal panel manufacturer.

C. Attach panel flashing trim pieces to supports using recommended fasteners and joint sealers.

D. Joint Sealers: Install liquid sealants where indicated and where required for weatherproof performance of metal panel assemblies.
   1. Seal panel base assembly, openings, panel head joints, and perimeter joints using joint sealers indicated in manufacturer's instructions.
   2. Seal perimeter joints between window and door openings and adjacent panels using elastomeric joint sealer.
   3. Prepare joints and apply sealants per requirements of Division 07 Section "Joint Sealants."

3.3 ACCESSORY INSTALLATION

A. General: Install metal panel accessories with positive anchorage to building and weather tight mounting; provide for thermal expansion. Coordinate installation with flashings and other components.
   1. Install components required for a complete metal panel assembly, including trim, copings, flashings, sealants, closure strips, and similar items.
   2. Comply with details of assemblies utilized to establish compliance with performance requirements and manufacturer's written installation instructions.
   3. Set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently weather resistant.

3.4 CLEANING AND PROTECTION

A. Clean finished surfaces as recommended by metal panel manufacturer.

B. Replace damaged panels and accessories that cannot be repaired to the satisfaction of the Architect.

END OF SECTION

SECTION 076200

FLEXIBLE FLASHING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Flexible flashing.
B. Through -wall flashing membrane
C. Cavity wall drainage system.
D. Cement, mastic, and accessories.

1.02 RELATED SECTIONS

A. Section 042200 - Unit Masonry Assemblies.

1.03 REFERENCES

A. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 1993, Fifth Edition.

1.04 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES
B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
C. Samples: Actual pieces of materials specified, not less than 3 by 5 inches.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide all flashing materials and accessories by a single manufacturer with not less than 10 years of experience in manufacturing products of the type specified.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to project site in manufacturer's original, sealed packaging.
B. Stack flashing materials under cover, avoid twisting and deformation, and store products in manufacturer's unopened packaging until ready for installation.
C. Store mastic materials in sealed containers that are protected from the weather.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: Basis of deign is CARLISLE COATINGS & WATERPROOFING: 900 Hensley Lane, Wylie, Texas 75098, 1-800-527-7092
B. Substitutions: See Section 016000 - Product Requirements.

2.02 MATERIALS

A. Transition Membrane (Self Adhering): SBS modified bitumen, self adhering sheet membrane, spray, trowel or brush applied.
B. Through-wall flashing membrane (Self Adhering): SBS modified bitumen, self-adhering sheet membrane complete with a cross-laminated polyethylene film.

2.03 ACCESSORIES

A. Plastic Cement: Advanced Type R Cement; a tacky, fast-grabbing, semi-pressure-sensitive rubber/resin base adhesive designed for bonding PVC sheet to itself and to metal, wood, or concrete.
B. Flashing Mastic: Advanced Cop-R-Tite Flashing Mastic; compounded composition of asphalt, mineral stabilizers, and fibers, manufactured to a trowel grade consistency.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Do not begin installation until substrates have been properly prepared and sloped so that water will drain to building exterior.
B. Verify that surfaces to receive flashing are thoroughly dry, free from loose materials, and reasonably smooth, with no projections or sharp edges that could puncture flashing.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions and with applicable recommendations of SMACNA Architectural Sheet Metal Manual.
B. Masonry Flashing: Comply with requirements of Section(s) 04810.
C. Flashing in Frame Construction: Install over solid backing, both vertically and horizontally. Secure in place with mastic; if mechanical fasteners are used apply mastic to all heads.
D. CMU Pan Flashing System: Install in compliance with manufacturer's instructions on formed concrete foundation or on CMU units that extend above grade, extending weep spout slightly beyond exterior face of block. Install bridge units prior to laying block.
E. Plastic Waterproofing: Apply vertically from the top down, laid in a full trowel coat of plastic cement using a notched trowel. Lap membrane a minimum of 6 inches at all joints. Roll surface of sheet with rubber hand roller to remove all air bubbles.
F. Fiberglass Waterproofing: Apply vertically from the top down, laid in a full trowel coat of mastic using a notched trowel. Lap membrane a minimum of 4 inches at all joints and coat with mastic. Roll surface of sheet with rubber hand roller to remove all air bubbles.

END OF SECTION

SECTION 076310

GUTTERS AND DOWNSPOUTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Pre-finished aluminum gutters and downspouts.
B. Precast concrete splash pads.
C. Cast aluminum downspout boots.

1.02 RELATED REQUIREMENTS

A. Section 099100 - EXTERIOR AND INTERIOR PAINTING

1.03 REFERENCE STANDARDS

A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels; 2005.
B. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels; 2005.
C. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2007.
D. ASTM B 209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate [Metric]; 2007.
E. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 2003.

1.04 DESIGN REQUIREMENTS

A. Conform to SMACNA Architectural Sheet Metal Manual for sizing components for rainfall intensity determined by a storm occurrence of 1 in 5 years.
B. Conform to applicable code for size and method of rainwater discharge.

1.05 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Indicate locations, configurations, jointing methods, fastening methods, locations, and installation details.
C. Product Data: Provide data on prefabricated components.
D. Samples: Submit two samples, 8 inch long illustrating component design, finish, color, and configuration.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope to drain.
B. Prevent contact with materials that could cause discoloration, staining, or damage.

1.07 PROJECT CONDITIONS

A. Coordinate the work with downspout discharge pipe inlet.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Gutters and Downspouts:
   1. MBCI www.mbci.com
   2. ATAS International, Inc.: www.atas.com.
   3. Dimensional Metals Inc. www.dmimetals.com
   4. Substitutions: See Section 016000 - Product Requirements.

2.02 MATERIALS

A. Pre-Finished Aluminum Sheet: ASTM B 209 (ASTM B 209M); 0.032 inch thick.
   1. Finish: Plain, shop pre-coated with modified silicone coating.
   2. Color: As selected from manufacturer's standard colors.

2.03 COMPONENTS

A. Gutters: Rectangular style profile.
B. Downspouts: Rectangular profile.
C. Anchors and Supports: Profiled to suit gutters and downspouts.
   1. Anchoring Devices: In accordance with Manufacturer and Roofing requirements.
   2. Gutter Supports: Brackets.
   3. Downspout Supports: Brackets.
D. Fasteners: Same material and finish as gutters and downspouts, with soft neoprene washers.

2.04 ACCESSORIES

A. Splash Pads: Precast concrete type, size and profiles indicated; minimum 3000 psi at 28 days, with minimum 5 percent air entrainment.
B. Downspout Boots: Cast Aluminum.
   1. Manufacturer: Barry Craft.
   2. Model No.: B25D.
   3. Profile: Rectangular, to match downspout profile.

2.05 FABRICATION

A. Form gutters and downspouts of profiles and size indicated.
B. Fabricate with required connection pieces.
C. Form sections square, true, and accurate in size, in maximum possible lengths, free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.
D. Hem exposed edges of metal.
E. Fabricate gutter and downspout accessories; seal watertight.

2.06 FACTORY FINISHING

A. Fluoropolymer Coating: High Performance Organic Finish, AAMA 2604; multiple coat, thermally cured fluoropolymer finish system; color as selected from manufacturer's standard colors.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.
B. Verify that surfaces are ready to receive work.

3.02 PREPARATION

A. Paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil.

3.03 INSTALLATION

A. Install gutters, downspouts, and accessories in accordance with manufacturer's instructions.
B. Sheet Metal: Join lengths with formed seams sealed watertight. Flash and seal gutters to downspouts and accessories.
C. Slope gutters 1/8 inch per foot.
D. Connect downspouts to downspout boots at 60 inches above grade. Grout connection watertight.
E. Set splash pans under downspouts.

END OF SECTION

SECTION 079200

JOINT SEALERS AND SEALANT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Sealants and caulking.
B. Flexible epoxy joint fillers.
C. Backer rods.

1.02 RELATED SECTIONS

A. Section 033000 - Cast-In-Place Concrete.
B. Section 042200 - Unit Masonry Assemblies.
C. Section 078400 - Firestopping.
E. Section 076200 - Flexible Flashing.
F. Section 084113 - Aluminum Framed Entrances and Storefronts.
G. Section 088000 - Glazing.

1.03 REFERENCES

A. ASTM C 321 - Standard Test Method for Bond Strength of Chemical-Resistant Mortars; 2000.
B. ASTM C 882 - Standard Test Method for Bond Strength of Epoxy-Resin Systems Used with Concrete by Slant Shear; 1999.
C. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants; 1998.
D. ASTM C 1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants; 1996.
E. CAN/CGSB-19.13-M - Sealing Compound, One-Component, Elastomeric, Chemical Curing; 1987.
F. CAN/CGSB-19.24-M - Multicomponent, Chemical-Curing Sealing Compound; 1990.

1.04 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.
B. Product Data: Manufacturer's Technical Data Guides and application procedures.
C. Verification Samples: Submit samples illustrating colors selected.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company regularly engaged in manufacturing and marketing of products specified in this section.
B. Installer Qualifications: Qualified to perform work specified by reason of experience or training provided by product manufacturer.
C. Mock-Ups: Include a minimum of 4 linear feet of joints in cast-in-place concrete.
    1. Apply mock-up with specified joint filler types and with other components noted.
    2. Locate where directed by ERO International, LLP.
    3. Mock-up may remain as part of work if acceptable to ERO International, LLP.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in original factory packaging bearing identification of product, manufacturer, and batch number. Provide Material Safety Data Sheets for each product.
B. Store products in a location protected from freezing, damage, construction activity, precipitation, and direct sunlight in strict accordance with manufacturer's recommendations.
C. Condition products to approximately 60 to 70 degrees F for use in accordance with manufacturer's recommendations.
D. Handle all products with appropriate precautions and care as stated on Material Safety Data Sheet.

1.07 PROJECT CONDITIONS

A. Do not use products under conditions of precipitation or freezing weather. Use appropriate measures for protection and supplementary heating to ensure proper curing conditions in accordance with manufacturer's recommendations if application during inclement weather occurs.
B. Ensure substrate is dry.
C. Protect adjacent work from contamination due to mixing, handling, and application of flexible epoxy joint filler.

1.08 WARRANTY

A. See Section 01780 - Closeout Submittals, for additional warranty requirements.
B. Provide manufacturer's two year standard material warranty.
C. Include coverage for replacement of sealant materials which fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.
D. Warranty Exclusions: Failure resulting from concrete shrinkage, structural cracks or defects, faulty construction, faulty design, faulty materials (other than joint filler), misuse of structure, settlement, or accident, fire or other casualty or physical damage.

PART 2 PRODUCTS

2.01 - MANUFACTURERS

A. Acceptable Manufacturers (Sealants and Joint Fillers):
   1. Sonneborn Building Products, is the basis of design.
   2. Dow Corning.
   3. Pecora.
   4. Tremco.
B. Substitutions: See Section 016000 - Product Requirements.

2.02 MATERIALS

A. Single Component, Non-Sage Silyl Terminated Polyether Sealant: Sonneborn "Sonolastic(R) 150," with plus 100 and minus 50 percent movement capability for vertical joints; ASTM C 920, Type S, Grade NS, Class 25; USDA approved.
B. Single Component, Polyurethane Sealant: Plus or minus 25 percent joint movement capability; ASTM C 920, Type S, Grade NS, Class 25, uses NT, M, A, and O; FS TT-S-00230C.
C. Multi-Component Component, Non-Sag Polyurethane Sealant: Sonneborn(R)/ChemRex "Sonolastic(R) NP 2(tm)" with plus or minus 25 percent movement capability for vertical joints; ASTM C 920, Type M, Grade NS, Class 25; CAN/CGSB-19.24-M, Classification MCG-2-40-A-N, No. 81029; USDA approved; SWRI validated; UL listed for firestopping assemblies.

D. Single Component, Self-Leveling Polyurethane Sealant: Sonneborn(R)/ChemRex "Sonolastic(R) SL 1(tm)" with plus or minus 25 percent movement capability for horizontal joints; ASTM C 920, Type S, Grade P, Class 25; CAN/CGSB-19.13-M, Classifications C-1-40-B-N and C-1-25-B-N, No. 81028; USDA approved.

E. Multi-Component, Self-Leveling Polyurethane Sealant: Sonneborn(R)/ChemRex "Sonolastic(R) SL 2(tm)" with plus or minus 25 percent movement capability for horizontal joints; ASTM C 920, Type M, Grade P, Class 25; FS TT-S-00227E, Type I, Class A; CAN/CGSB-19.24-M, Classification MCG-1-40-B-L, No. 81031; USDA approved.

F. Silicone Sealant: ASTM C 920, Type S, Grade NS, Class 25, Use NT, A, and M; USDA approved.

G. Poured Flexible Epoxy Joint Filler: Sonneborn(R)/ChemRex "Epolith(R)-P"; two component 100 percent solids epoxy joint filler with flexible, pourable, self-leveling properties.
   1. Shore A Hardness: 85 plus or minus 5.
   2. Shore D Hardness: 34.
   3. Elongation: 75 percent.
   4. Tensile Strength: 655 pounds per square inch plus or minus 10 pounds per square inch.
   5. Mixing Ratio: 1 to 1 by volume.
   6. Pot Life: 40 to 55 minutes at 75 degrees F.
   7. Cure Time, Foot Traffic: 4 hours.
   8. Cure Time, Vehicular Traffic: 24 hours.
   9. Application Temperature: Minimum 55 degrees F.

H. Gunned Flexible Epoxy Joint Filler: Sonneborn(R)/ChemRex "Epolith(R)-G"; two component 100 percent solids, gun-grade epoxy joint filler with flexible, pick-proof properties for sloped areas.
   1. Shore A Hardness: 90 plus or minus 5.
   2. Shore D Hardness: 50.
   3. Elongation: 50 percent.
   4. Tensile Strength: 900 pounds per square inch plus or minus 10 pounds per square inch.
   5. Slant Shear Strength: 865 pounds per square inch per ASTM C 882.
   6. Slant Shear Strength: 112 pounds per square inch per ASTM C 321.
   7. Mixing Ratio: 1 to 1 by volume.
   8. Pot Life: 40 to 55 minutes at 75 degrees F.
   9. Cure Time, Foot Traffic: 4 hours.
   10. Cure Time, Vehicular Traffic: 24 hours.
   11. Application Temperature: Minimum 55 degrees F.

2.03 ACCESSORIES

A. Primer: Sonneborn(R)/ChemRex "Primer No. 2000," solvent based.

B. Joint Cleaner: Sonneborn(R)/ChemRex "REDUCER 990"; non-corrosive and non-staining.

C. Soft Backer Rod: Sonneborn(R)/ChemRex "Sonofoam Soft Backer Rod"; non-gassing, reticulated closed-cell polyethylene rod designed for use with cold-applied joint sealants.
   1. Comply with ASTM C 1330.
   2. Size required for joint design.

D. Closed-Cell Backer Rod: Sonneborn(R)/ChemRex "Sonofoam Closed-Cell Backer Rod"; closed-cell polyethylene rod designed for use with cold-applied joint sealants for on-grade or below-grade applications.
   1. Comply with ASTM C 1330.
   2. Size required for joint design.

E. Joint Filler: Sonneborn(R)/ChemRex "Expansion Joint Filler"; closed-cell polyethylene joint filler designed for use in cold joints, construction joints, or isolation joints wider than 1/4 inch.
   1. Size required for joint design.

F. Bond Breaker: Pressure-sensitive tape recommended by sealant manufacturer to suit application.

2.04 COLOR

A. Sealant Colors: Selected by Architect from manufacturer's standard color range.

PART 3 EXECUTION

3.01 EXAMINATION

A. Inspect all areas involved in work to establish extent of work, access, and need for protection of surrounding construction.
B. Protect all surroundings from flexible epoxy joint filler including, but not limited to, floors, equipment, line striping, walkways, and drives.
C. Conduct pre-application inspection of site verification with an authorized manufacturer's representative.

3.02 PREPARATION

A. Remove loose materials and foreign matter that may impair adhesion of joint filler.
B. Clean joints and saw cuts by grinding, sandblasting, or wire brushing to expose a sound surface free of contamination and laitance.
C. Ensure structurally sound surfaces, dry, clean, free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing, curing and parting compounds, membrane materials, and other foreign matter.
D. Where the possibility of joint filler staining of adjacent areas or materials exists, mask joints prior to application.
    1. Do not remove masking tape before joints have been tooled and initial cure of joint filler has taken place.
    2. Work stained due to failure of proper masking precautions will not be accepted.

3.03 INSTALLATION

A. Back-Up Material:
    1. Install appropriate size backer rod, larger than joint where necessary according to manufacturer's recommendations.
    2. Install polyethylene joint filler in joints wider than 1/4 inch to back-up material per manufacturer's recommendations.
    3. Do not install epoxy joint filler over backer rod.
B. Bond Breaker: Install bond-breaker strip in joint to be sealed on top of back-up material to prevent adhesion of sealant to back-up material; install per manufacturer's recommendations.
C. Sealant:
    1. Prepare sealants that require mixing; follow manufacturer's recommended procedures, mixing thoroughly.
    2. Mix only as much material as can be applied within manufacturer's recommended application time period.
    3. Apply materials in accordance with manufacturer's recommendations; take care to produce beads of proper width and depth, tool as recommended by manufacturer, and immediately remove surplus sealant.
    4. Apply materials only within manufacturer's specified application life period. Discard sealant after application life is expired or if prescribed application period has elapsed.
D. Epoxy Joint Filler:

1. Transfer entire contents of activator container thoroughly with entire contents of base container in separate container of appropriate size.
2. Mix only as much material as can be applied within manufacturer's recommended application time period.
3. Mix with slow-speed drill (80-100 rpm) and slotted paddle. Ensure mixing paddle reaches bottom and scrapes side of container several times. Scrape paddle several times to ensure thorough mixing. Keep paddle blade below surface to avoid whipping air into material.
4. Mix Epolith(R)-P for 5 to 7 minutes; pour from spouted can or professional bulk-loading calking gun.
5. Mix Epolith(R)-G for 8 to 10 minutes; apply by professional bulk-loading gun.
6. Maintain minimum joint application of 2/3 joint depth or 1 inch, whichever is greater.
7. Fill joints from bottom up to exterior face by holding properly sized nozzle against joint bottom.
8. Tool joint to ensure maximum adhesion to joint sides, correct bead configuration, and a neat joint. Dry tool or dampen tool with Reducer 990. Do not use water or soapy water.
9. Apply materials only within manufacturer's specified application life period. Discard joint filler after application life is expired or if prescribed application period has elapsed.

3.04 CLEANING

A. Remove uncured sealant and joint filler with Reducer 990, xylene, toluene, or MEK. Remove cured sealant and joint filler by razor, scraping, or mechanically.
B. Remove all debris related to application of sealants from job site in accordance with all applicable regulations for hazardous waste disposal.

3.05 SCHEDULE OF JOINT SEALERS

A. General-Purpose Interior and Exterior Applications:
   1. Sealant:
      a. Single component polyurethane.
   2. Applications:
      a. Joints and recesses between adjacent constructions and frames, sills, and subsills of windows, doors, curtainwall, storefront, and louvers.
      b. Coping joints and wash joints in precast concrete, cast stone, or natural stone.
      c. Masonry joints beneath shelf angles. d.
      Around penetrations in exterior walls.
      e. Under door thresholds and at bottom of door frames.
      f. Where necessary to prevent infiltration of water or air into or through exterior building envelope.
B. Other Exterior Applications:
   1. Sealant:
      a. Silicone.
   2. Applications:
      a. Between adjacent construction and gravel stops, copings, fascias, and miscellaneous flashings.
      b. Metal flashings inserted into reglet.
      c. Top edges of surface mounted counterflashing.
      d. Expansion and control joints in masonry where expansion joint covers are not indicated.
      e. Joints between new and existing exterior construction.
C. Interior Wetted Areas:
   1. Sealant: Silicone.

2. Applications: Between adjacent construction and vanities, shower stalls, bathtub and shower enclosures, sinks, counter tops, plumbing cut-outs, and plumbing fixtures.

D. Interior High-Movement Joints:
   1. Sealant:
      a. Single component polyurethane.
   2. Applications:
      a. At resilient joint between interior partitions and floor framing above.

E. Other Interior Applications:
   1. Sealant:
      a. Silicone.
   2. Applications:
      a. Between adjacent construction and equipment, shelving, casework, and furniture. b. Perimeters of door and window frames, access panels.
      c. Between interior partitions and adjoining concrete or steel columns, walls, or other construction.
      d. Other exposed locations within partitions to seal against passage of air. e. Other interior joints of small dimension which require painting.
      f. Gypsum board partitions:
         1) Between gypsum panels and metal track at floors and dissimilar walls; install sealant just prior to installation of gypsum panel.
         2) Between adjacent face layers of abutting intersection gypsum board partitions; install sealant before taping and finishing joint.
         3) Between gypsum panels and penetrations: Seal around openings of ducts and pipes. Seal sides and backs of electrical boxes.
         4) Seal control joints prior to installing control joint trim.
      g. Other concealed locations within partitions to completely seal against passage of air.
   3. Allow sealant to cure before painting over joint.

F. Exterior Traffic Surfaces:
   1. Sealant:
      a. Single component self-leveling polyurethane.
   2. Applications:
      a. Control and expansion joints in sidewalks and pavements.

G. Interior Traffic Surfaces:
   1. Sealant:
      a. Single component self-leveling polyurethane.
   2. Applications:

H. Interior Heavy Traffic Surfaces:
   1. Surface preparation: Freshly saw-cut or blast-clean joints; blow with oil-free compressed air.
   2. Sealant: Epoxy Joint Filler.
      a. Pour flush with adjacent surface in 2 pours in accordance with manufacturer's instructions.
   3. Applications: Control joints in floors subject to vehicular traffic.

I. Glazing:
   1. Primer: None.
      a. Glass (non-coated).
      b. Ceramic tile, quarry tile.
   2. Primer:
      a. Aluminum (anodized and mill finish).
      b. Iron and steel (carbon, stainless, galvanized). c. Plastic (ABS, PVDF, polyurethane, PVC).
      d. Wood.

e. Marble, slate. f.
Concrete.

3. Sealant:
   a. Silicone.
4. Applications:
   a. Glazing, including butt and lap sheer joints, stopless glazing, and cap, head and toe bead in conventional glazing.
   b. Curtain wall.
   c. Storefront.

END OF SECTION

SECTION 079500

EXPANSION CONTROL SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Exterior Expansion Control Systems.
B. Metallic Expansion Control Systems.
C. Wall and Ceiling Covers.
D. Exterior Seals and Covers.
E. Interior seals.
F. Associated Materials, adhesives, fire barriers, sealant, water barriers, etc.

1.2 RELATED SECTIONS

A. Section 033000 - Cast-in-Place Concrete.
B. Section 054000 - Cold-Formed Metal Framing.
C. Section 076200 - Sheet Metal Flashing and Trim.
D. Section 079000 - Joint Protection.

1.3 REFERENCES

A. ASTM B209 - Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate.
B. ASTM B 221 - Standard Specification for Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire, Shapes and Tubes.
C. ASTM C 509 - Standard Specification for Elastomeric Cellular Preformed Gasket and Sealing Material - Neoprene.
D. ASTM E 1399 - Standard Test Method for Cyclic Movement and Measuring the Minimum and Maximum Joint Widths of Architectural Joint Systems.

1.4 PERFORMANCE REQUIREMENTS

A. Seismic Requirements:
    1. Movement X Axis: 50 percent of nominal.
    2. Movement Y Axis: 50 percent of nominal.
    3. Movement Z Axis: 50 percent of nominal.

1.5 SUBMITTALS

A. Submit under provisions of Section 013000 - SUBMITTALS.
B. Product Data: Manufacturer's data sheets on each product to be used, including:
    1. Preparation instructions and recommendations.
    2. Storage and handling requirements and recommendations.
    3. Installation methods.
C. Shop Drawings:
    1. Submit Manufacturer's standard details for each applicable condition found on the project.
    2. Special condition details must be reviewed and approved by the Architect in writing prior to installation. Preparation of alternate or non-standard details is the responsibility of the Contractor.
D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1. Submit listings or test reports affirming compliance with all federal, state, and local building and life safety codes.
2. Special condition details must be reviewed and approved by the Architect in writing prior to installation. Preparation of alternate or non-standard details is the responsibility of the Contractor.

E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

F. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

G. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment of all components.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications:
1. All primary products specified in this section shall be provided by a single manufacturer with a minimum of 10 years experience in the design and fabrication of expansion joint cover assemblies.
2. Manufacturers shall be ISO 9001-2000 Certified with documented management and control of the processes that influence the quality of its products and customer service.

B. Installer Qualifications:
1. All products listed in this section shall be installed by a single installer with demonstrated experience in installing products of the same type and scope as specified.
2. Installer shall be insured and licensed as required by agencies within the project's jurisdiction and acceptable or authorized by the manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging with labels intact until ready for installation.

B. Store products under cover in a dry, cool location. Store off the ground; protect from freezing, direct sun exposure, weather and construction activities. Store all resin components, at temperatures between 50 degrees F and 80 degrees F (10 C to 27 C).

1.8 SEQUENCING

A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.

B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.9 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.10 WARRANTY

A. Warranty: The specified products are warranted when installed in strict accordance with the manufacturer's technical specifications, details, installation instructions and general procedures as well as good industry practice in effect for normal traffic usage and suitable applications under specific design movements and loading conditions.
1. Warranty Duration: 3 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Balco, Inc., which is located at: 2626 S. Sheridan P. O. Box 17249; Wichita, KS 67217-0249; Toll Free Tel: 800-767-0082; Tel: 316-945-9328; Fax: 316-945-0789; Email:request info (info@balcousa.com); Web:www.balcousa.com

B. Requests for substitutions will be considered in accordance with provisions of Section 016000 - Product Requirements.

2.2 BALCO EXPANSION CONTROL SYSTEMS - SCHEDULE

A. Exterior ROOF TO WALL Expansion Joint System: **BALCO LPRE-1 Roof to Wall**

B. Exterior WALL TO WALL Expansion Joint System: **BALCO 9WC-1 Wall to Corner**

C. Interior FLOOR TO FLOOR Expansion Joint System: **BALCO 75FPE-1 Floor to Floor**

D. Interior FLOOR TO WALL Expansion Joint System: **BALCO 75FVTE-1 Floor to Wall**

E. Interior WALL TO WALL Expansion Joint System: **BALCO 75FWGC-1 Wall to Corner**

F. Interior CEILING TO WALL Expansion Joint System: **BALCO 75FWGC-1 Wall to Corner**

G. Associated Materials: as required for proper installation of complete system(s).

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that field measurements and blockout dimensions are as shown on shop drawings prior to releasing materials for fabrication by the manufacturer.

B. Do not begin installation until substrates have been properly prepared.

C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

B. Solidly form the blockout and joint opening, and allow concrete to properly cure. Corners must be sharp or rounded in accordance with the manufacturer and project's requirements. Repair edges or areas with a concrete repair material approved by the Manufacturer and Architect.

C. Blockouts requiring the use of patching compounds must be cured in accordance with the patching compound manufacturer's recommendations and instructions prior to placement of Elastomeric Concrete. Coordinate with other trades if patching is the responsibility of others.

D. Clean dirt, debris, and other contaminants from the blockout and the joint opening.

E. Sandblast the blockout to expose aggregate to remove contaminants and prepare the surfaces for the installation of the Elastomeric Concrete Header material.

F. Mask areas adjacent to the joint with tape to assure neat, clean joint lines. Remove the tape prior to the curing process.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions. Handle, mix or otherwise prepare all components in accordance with the manufacturer's recommendations and instructions.

B. Do not install Elastomeric Concrete when ambient temperature is below 40 degrees F.

C. Immediately prior to installation, blow out the blockout and joint interfaces using compressed air.
D. Prior to installation, remove packaging from elastomeric products and allow them to relax.
E. Clean up the work area after installation of the system is completed.
F. Fabricate horizontal transitions and butt splices such as 90 degree corners, tees and crosses as recommended by the manufacturer. Extend horizontal transitions a minimum of 24 inches (610 mm) in each direction from the splice.

3.4 PROTECTION

A. Protect the completed Expansion Control system work from damage during construction.
B. Do not allow vehicular traffic without the specific written permission of the Architect.
C. Prior to project closeout, clean exposed surfaces with a suitable cleaner (toluene or xylene) that will not harm the finish.

END OF SECTION

SECTION 081113

HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification Sections, apply to this Section,

1.02 GENERAL REQUIREMENTS

A. Any door or frame shown on the floor plans and not specifically referenced in the door schedule shall be provided as identical to a similar opening and shall be included in the hollow metal supplier's base bid, if there is no similar opening, provide price to include a frame and door as recommended by the hollow metal manufacturer for that type of opening.
B. All fire rated doors and frames shall be provided to comply with the local code requirements whether drawn that way or not as part of the hollow metal supplier's base bid.

1.03 SUMMARY

A. This Section includes steel doors and frames.
B. Related Sections: The following Sections contain requirements that relate to this Section:
   1. Division 4 Section "Unit Masonry Assemblies" for building anchors into and grouting frames in masonry and drywall construction.
   2. Division 8 Section "Custom Steel Doors and Frames" for doors manufactured according to the Hollow Metal Manufacturers Association's standards.
   3. Division 8 Section "Flush Wood Doors" for solid-core wood doors installed in steel frames.
   4. Division 8 Section "Door Hardware" for door hardware and weatherstripping.
   5. Division 8 Section "Glazing" for glass in steel doors and sidelights.
   6. Division 9 Section "Gypsum Board Assemblies" for spot grouting frames in gypsum board partitions.
   7. Division 9 Section "Painting" for field painting primed doors and frames.

1.04 DEFINITIONS

A. Minimum Thickness: Minimum thickness of base metal without coatings.
B. Standard Hollow Metal Work: Hollow metal work fabricated according to ANSI/SDI A250.8.

1.05 SUBMITTALS

A. Product Data. For each type of product indicated. Include construction details, material descriptions, core descriptions, hardware reinforcements, profiles, anchors, fire-resistance rating, temperature-rise ratings, and finishes.
B. Shop Drawings; include the following:
   1. Elevations of each door design.
   2. Details of doors, including vertical and horizontal edge details and metal thicknesses.
   3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
   4. Locations of reinforcement and preparations for hardware.
   5. Details of each different wall opening condition.
   6. Details of anchorages, joints, field splices, and connections.
   7. Details of accessories.
   8. Details of moldings, removable stops, and glazing.
   9. Details of electrical knockout boxes and preparations for power, signal, and control systems.
C. Other Action Submittals:
   1. Schedule: Provide a schedule of hollow metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings, Coordinate with door hardware schedule.

D. Oversize Construction Certification: For assemblies required to be fire rated and exceeding limitations of labeled assemblies,

1.06 QUALITY ASSURANCE

A. Source Limitations: Obtain hollow metal work from single source from single manufacturer.
B. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 (neutral pressure at 40" above sill) or UL 10C.
   1. Oversize Fire-Rated Door Assemblies. For units exceeding sizes of tested assemblies provide certification by a qualified testing agency that doors comply with standard construction requirements for tested and labeled fire-rated door assemblies except for size.
   2. Temperature-Rise Limit. Where indicated and at vertical exit enclosures and exit passageways, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F (250 deg C) above ambient after 30 minutes of standard fire-test exposure.

C. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with NFPA 80 that are listed and labeled, by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 257. Label each individual glazed lite.
D. Smoke-Control Door Assemblies: Comply with NFPA 105.
E. Pre-installation Conference: Conduct conference at Project site for hollow metal frames requiring electrical knockout boxes to verify installation of conduit on frames.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project site storage. Do not use non-vented plastic.
B. Deliver welded frames with two removable shipping braces across bottom of frames, tack welded to jambs and mullions.
C. Store hollow metal work under cover at Project site. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch- (102-mm-) high wood blocking. Do not store in a manner that traps excess humidity. 1. Provide minimum 1/4-inch (6-mm) space between each stacked door to permit air circulation.

1.08 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

1.09 COORDINATION

A. Coordinate installation of anchorages for hollow metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. Manufacturers. Subject to compliance with this section requirements, provide products by one of the following:
   1. Ceco Door Products
   2. Curries Company
   3. SteelCraft
   4. Deansteel
   5. Amweid
   6. Other SDM members will be considered only if prior approval is given in accordance with substitution request requirements per General Requirements section. Non-SDI members will not be considered.

2.02 MATERIALS

A. Cold-Rolled Steel Sheets: Carbon steel complying with ASTM A 366 (ASTM A 366M), commercial quality, or ASTM A 620 (ASTM A 620M), drawing quality, special killed.
B. Metallic-Coated Steel Sheet: ASTM A 653/A653M, Commercial Steel (CS), Type B; A60 (ZF180) metallic coating.
C. Frame Anchors: ASTM A591/A591M, Commercial Steel (CS), 40Z (12G) coating designation; mil phosphatized.
    1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 101 1/A 10 iM, hot-dip galvanized according to ASTM A 153/A 53M, Class B.
D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.
E. Glazing Comply with requirements in Division 08 Section "Glazing."

2.03 STANDARD HOLLOW METAL DOORS

A. General: Provide 1 3/4" thick doors of design indicated, fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8.
    1. Design: Flush panel
    2. Core Construction Exterior: Manufacturer's standard vertically steel-stiffened core.
    3. Core Construction Exterior (insulated): Manufacturer's standard polyurethane core.
        a. Thermal-Rated (Insulated) Doors. Where indicated, provide doors fabricated with thermal-rated assemblies with R Factor 11 or better.
            1. Locations: Exterior doors or as required in the door schedule.
    4. Core Construction Interior: Manufacturer’s standard Polystyrene core.
        a. Fire Door Core: As required to provide fire-protection and temperature-rise ratings indicated.
    5. Vertical Edges for Single-Acting Doors: Beveled edge
        a. Beveled Edge: 1/8 inch in 2 inches (3 mm in 50 mm).
    6. Vertical Edges for Double-Acting Doors. Round vertical edges with 2-1/8-inch (54-mm) radius.
    7. Top and Bottom Edges: Closed with flush or inverted 0.042-inch- (1.0-mm-) thick, end closures of channels of same material as face sheets.
    8. Tolerances. Comply with SDI 1.17, "Manufacturing Tolerances for Standard Steel Doors and Frames."
B. Exterior Doors. Face sheets fabricated from metallic-coated steel sheets. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
    1. Level 3 and Physical Performance Level A (Extra Heavy Duty), minimum 16 gage (0.053-inch - 1.3 mm-) thick steel, Model 2 (Seamless face and edges).
    2. Edges to be continuously wire welded, dressed, ground smooth and primed with compatible air-drying, rust-inhibitive primer.
    3. Provide weep-hole openings in bottom of exterior doors to permit moisture to escape. Top of door to be flush and completely sealed joints in top edges of doors against water penetration.
C. Interior Doors: Face sheets fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated. Provide doors complying with requirements indicated below by referencing ANSI/SDi A250.8 for level and model and ANSI/SDi A250.4 for physical performance level:
    1. Level 2 and Physical Performance Level B (Heavy Duty), minimum 18 gage (0.042-inch - 1.0-mm-) thick steel, Model 2 (Seamless face and edges).
    2. Edges to be tack welded, dressed, ground smooth and primed with compatible air-drying primer.
D. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.
E. Fabricate concealed stiffeners and hardware reinforcement from either cold- or hot-rolled steel sheet.

2.04 STANDARD HOLLOW METAL FRAMES

A. General: Comply with ANSI/SDH A250.8 and with details indicated for type and profile.
B. Exterior Frames: Fabricated from metallic-coated steel sheets.
    1. Fabricate frames with mitered or coped corners.
    2. Fabricate frames as face welded joints, dressed, ground smooth and primed with compatible air-drying, rust-inhibitive primer, unless otherwise indicated.
    3. Frames for Level 3 Steel Doors: minimum 14 gage 0.067-inch- (1.7-mm-) thick steel sheet.
C. Interior Frames: Fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated.
    1. Fabricate frames with mitered or coped corners.
    2. Fabricate frames as face welded joints, dressed, ground smooth and primed with compatible air-drying

primer.

3. Frames for Level 2 Steel Doors: minimum 16 gage 0.053-inch- (1.3-mm-) thick steel sheet.
4. Frames 48-inches and wider in opening width are required to be minimum 14-gage 0.067-inch- (1.7 mm-) thick steel sheet.
5. Frames for Wood Doors; minimum 16 gage 0.053-inch- (1.3-mm-) thick steel sheet.
6. Frames for Borrowed Lights: minimum 16 gage 0.053-inch- (1.3-mm-) thick steel sheet.

D. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 Table 4 with reinforcement plates from same material as frames.

2.05 FRAME ANCHORS

A. Jamb Anchors:
   1. Masonry Type: T-shaped anchors to suit frame size, not less than 0.042 inch (1.0 mm) thick, with corrugated or perforated straps not less than 2 inches (50 mm) wide by 10 inches (250 mm) long; or wire anchors not less than 0.177 inch (4.5 mm) thick.
   2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch (1.0 mm) thick.
B. Floor Anchors. Formed from same material as frames, not less than 0.042 inch (1.0 mm) thick, and as follows:
   1. Monolithic Concrete Slabs; Clip-type anchors, with two holes to receive fasteners.
   2. Separate Topping Concrete Slabs; Clip-type anchors, with two holes to receive fasteners.

2.06 STOPS AND MOLDINGS

A. Moldings for Glazed Lites in Doors: Minimum 0.032 inch (0.8 mm) thick, fabricated from same material as door face sheet in which they are installed.
B. Fixed Frame Moldings. Formed integral with hollow metal frames, a minimum of 5/8 inch (16 mm) high unless otherwise indicated.
C. Loose Stops for Glazed Lites in Frames: Minimum 0.032 inch (0.8 mm) thick, fabricated from same material as frames in which they are installed.

2.07 ACCESSORIES

A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.
B. Grout Guards. Formed from same material as frames, not less than 0.016 inches (0.4 mm) thick.

2.03 FABRICATION

A. Fabricate hollow metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
B. Tolerances: Fabricate hollow metal work to tolerances indicated in ANSI/SDH A250.8
C. Sidelight and Transom Bar Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
D. High Frequency Hinge Reinforcement: Provide high frequency hinge reinforcements at door openings 42inch and wider with mortise/butt type hinges only at top hinge location to deter against hinge reinforcement sag.
E. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge strap for continuous hinges specified in hardware sets in Division 8 Door Hardware.
F. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated for removable stops, provide security head screws at exterior locations.
G. Grout Guards: Weld guard boxes to frame at back of mortise hardware prep in frames at all hinge, strike and other recessed hardware preps regardless of grouting requirements.
H. Provide A60 Galvannealed coating at frames in restrooms with showers/Jacuzzi, clean areas such as surgery rooms and surgical Suites, clean rooms, and soil rooms.
I. Anchors:

1. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
2. Jamb Anchors: Provide number and spacing of anchors as follows:
    a. Masonry Type: Locate anchors not more than 18 inches (457 mm) from top & bottom of frame. Space anchors not more than 32 inches (81.3 mm) oc. and as follows:
        1. Two anchors per jamb up to 60 inches (1524 mm) high.
        2. Three anchors per jamb from 60 to 90 inches (1524 to 2286 mm) high.
        3. Four anchors per jamb from 90 to 120 inches (2286 to 3048 mm) high.
        4. Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches (610 mm) or fraction thereof above 120 inches (3048 mm) high.
    b. Stud-Wall Type: Locate anchors not more than 18 inches (457 mm) from top and bottom of frame. Space anchors not more than 32 inches (81.3 mm) o.c. and as follows:
        1. Three anchors per jamb up to 60 inches (1524 mm) high.
        2. Four anchors per jamb from 60 to 90 inches (1524 to 2286 mm) high.
        3. Five anchors per jamb from 90 to 96 inches (2286 to 2438 mm) high.
        4. Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches (610 mm) or fraction thereof above 96 inches (2438 mm) high.
        5. Two anchors per head for frames above 42 inches (1066 mm) wide and mounted in metal-stud partitions.
3. Door Silencers: Except on weather-stripped of gasketed doors, drill stops to receive door silencers as follows. Keep holes clear during construction. Silencers to be supplied by frame manufacture regardless if specified in division 8 Door Hardware
    a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
    b. Double-Door Frames. Drill stop in head jamb to receive two door silencers.

J. Fabricate concealed stiffeners, edge channels, & hardware reinforcement from either cold- or hot-rolled steel sheet.

K. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised hardware, include cutouts, reinforcement, mortising, drilling, and tapping according to the Door Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."
1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
2. Reinforce doors and frames to receive nontemplated, mortised and surface-mounted door hardware.
3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.
4. Coordinate locations of conduit and wiring boxes for electrical connections with Division 26 Sections.

L. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints at fabricators shop
1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow metal work.
2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that glazed lites are capable of being removed independently.
3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
4. Coordinate rabbet width between fixed and removable stops with type of glazing and type of installation indicated.
5. Gap for butted or mitered joints in glass stop should not exceed .0625-inch.

2.09 STEEL FINISHES

A. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating,
1. Shop Primer Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.
2. Exterior doors and frames to be primed with compatible air-drying, rust-inhibitive primer.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.

C. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the

Work,

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.

B. Prior to installation, adjust and securely brace welded hollow metal frames for squareness, alignment, twist, and plumbness to the following tolerances:
   1. Squareness. Pius or minus 1/16 inch (1.6 mm), measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
   2. Alignment: Pius or minus 1/16 inch (1.6 mm), measured at jambs on a horizontal line parallel to plane of wall.
   3. Twist: Plus or minus is 16 inch (1.6 mm), measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
   4. Plumbness. Pius or minus 1/16 inch (1.6 mm), measured at jambs on a perpendicular line from head to floor.

C. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

3.03 INSTALLATION

A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place, comply with Drawings and manufacturer's written instructions.

B. Hollow Metal Frames: install hollow metal frames of size and profile indicated. Comply with ANSI/SDH A250.11
   1. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
      a. At fire-protection-rated openings, install frames according to NFPA 80.
      b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously, grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
      c. Install frames with removable glazing stops located on secure side of opening.
      d. Install door silencers in frames before grouting.
      e. Remove temporary braces necessary for installation only after frames have been properly set and secured.
      f. Check plumbness, squareness, and twist of frames as wails are constructed. Shim as necessary to comply with installation tolerances.
      g. Field apply bituminous coating to backs of frames that are filled w/ grout containing antifreezing agents.
   2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post installed expansion anchors.
      a. Floor anchors may be set with powder-actuated fasteners instead of post installed expansion anchors if so indicated and approved on Shop Drawings.
   3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation behind frames.
   4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
   5. Concrete Walls. Solidly fill space between frames and concrete with grout. Take precautions, including bracing frames, to ensure that frames are not deformed or damaged by grout forces.
   6. Field Supplied Ceiling Struts: Extend struts vertically from top of frame at each jamb to overhead structural supports or substrates above frame unless frame is anchored to masonry or to other structural support at each jamb. Bend top of struts to provide flush contact for securing to supporting construction. Provide adjustable wedged or bolted anchorage to frame jamb members.
   7. Grouting Requirements:
      a. Do not grout head of frames unless reinforcing has been installed in head of frame.
      b. Do not grout vertical or horizontal closed mullion members.
   8. Installation Tolerances. Adjust hollow metal doorframes for squareness, alignment, twist, and plumb to the following tolerances:

a. Squareness. Plus or minus 1/16 inch (1.6 mm), measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
b. Alignment. Plus or minus 1/16 inch (1.6 mm), measured at jambs on a horizontal line parallel to plane of wall.
c. Twist: Pius or minus 1/16 inch (1.6 mm), measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
d. Plumbness. Pius or minus 1/16 inch (1.6 mm), measured at jambs at floor.

C. Hollow Metal Doors. Fit hollow metal doors accurately in frames, within clearances specified below, Shim as necessary:
1. Non-Fire-Rated Standard Steel Doors:
a. Jambs and Head: 1/8 inch (3 mm) plus or minus 1/16 inch (1.6 mm).
b. Between Edges of Pairs of Doors: 1/8 inch (3 mm) plus or minus 1/16 inch (1.6 mm),
c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch (9.5 mm).
d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch (19 mm).
2. Fire-Rated Doors. Install doors with clearances according to NFPA 80.
3. Smoke-Control Doors: Install doors according to NFPA 105.

D. Glazing. Comply with installation requirements in Division 08 Section "Glazing" and with hollow metal manufacturer's written instructions.
1. Secure stops with countersunk flat- or oval-head machine screws spaced uniformly not more than 9 inches (230 mm) o.c. and not more than 2 inches (50 mm) o.c. from each corner.
a. Secure exterior removable stops with security head screws.

3.04 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable,

B. Remove grout and other bonding material from hollow metal work immediately after installation.

C. Prime-Coat Touchup. Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

D. Metallic-Coated Surfaces: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION

SECTION 081416

FLUSH WOOD DOORS

PART 1: GENERAL

1.01 Related Documents

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 Summary

A. Section includes:
   1. Solid-core doors and transom panels with wood-veneer faces.
   2. Factory finishing wood doors.
   3. Factory fitting wood doors to frames and factory machining for hardware.

B. Related Sections:
   1. Division 6 Section "interior Architectural Woodwork" for requirements for veneers from the same flitches for both wood doors and wood paneling.
   2. Division 8 Section "Steel Doors and Frames" for astragal's provided as part of a fire-rated labeled assembly and for door silencers provided as part of the frame.
   3. Division 8 Section "Glazing" for glass view panels in wood doors.

1.03 Submittals

A. Product Data. For each type of door indicated, include details of core and edge construction, louvers, and trim for openings. Include factory-finishing specifications.

B. Shop Drawings. Indicate location, size, and hand of each door, elevation of each kind of door; construction details not covered in Product Data, location and extent of hardware blocking; and other pertinent data.
   1. Indicate dimensions and locations of mortises and holes for hardware.
   2. Indicate dimensions and locations of cutouts.
   3. Indicate requirements for veneer matching.
   4. Indicate doors to be factory finished and finish requirements.
   5. Indicate fire-protection ratings for fire-rated doors.

C. Samples for Initial Selection: For factory-finished doors.

D. Samples for Verification (Provide the following required samples prior to placing an order for any doors):
   1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches, for each material and finish. For each wood species and transparent finish, provide set of three samples showing typical range of color and grain to be expected in the finished work.

E. Warranty. Sample of special warranty.

1.04 Quality Assurance

A. Source Limitations: Obtain wood doors from single manufacturer wherever possible.

B. Quality Standard: in addition to requirements specified, comply with WDMA. H.S. 1-A, latest edition, "Industry Standard for Architectural Wood Flush Doors."

C. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.

D. Pre-installation Conference: Conduct conference at Project site.

1.05 Delivery, Storage, and Handling

A. Comply with requirements of referenced standard and manufacturer's written instructions.

B. Package doors individually in plastic bags or cardboard cartons and wrap bundles of doors in plastic sheeting.

C. Mark each door on top rail with opening number used on Shop Drawings.

1.06 Project Conditions

A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

1.07 Warranty

A. Special Warranty. Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Warping (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section.
      b. Telegraphing of core construction in wood face veneers exceeding 0.01 inch in a 3-inch span.
      c. Telegraphing of core construction and delamination of face in decorative laminate-faced doors.
   2. Warranty Period for Solid-Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.01 Door Construction, General

A. WDMA I.S. 1-A Performance Grade: Extra Heavy Duty.
B. Particleboard-Core Doors:
   1. Particleboard: ANS A208.1.
C. Fire-Protection-Rated Doors: Provide core specified or mineral core as needed to provide fire-protection rating indicated.
   1. Edge Construction. Provide 45, 60 and 90 minute fire-rated doors edge construction with intumescent seals concealed by outer stile (Category A). Comply with specified requirements for exposed edges.
   2. Edge Construction: Provide 20 minute fire-rated doors as Category B, with smoke and fire seats (supplied by seal manufacturer) applied to frame for 20 minute openings,
   3. Pairs. Provide fire-retardant stiles that are listed and labeled for applications indicated without formed-steel edges and astragals. Provide stiles with concealed intumescent seals. Comply with specified requirements for exposed edges.
   4. Pairs. Provide formed-steel edges and astragals with intumescent seals.
      a. Finish steel edges and astragals with baked enamel.
D. Mineral-Core Doors:
   1. Core: Non-combustible mineral product complying with requirements of referenced quality standard and testing and inspecting agency for fire-protection rating indicated.
   2. Blocking. Provide composite blocking with improved screw-holding capability approved for use in doors of fire-protection ratings indicated as needed to eliminate through-bolting hardware.
   3. Edge Construction. At hinge stiles, provide laminated-edge construction with improved screw holding capability and split resistance. Comply with specified requirements for exposed edges.

2.02 Veneered-Faced Doors for Transparent Finish

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Graham.
   2. Algoma Hardwoods.
   3. Eggers Industries.
   4. Marshfield Door Systems, Inc. V-T Industries Inc.
   5. Oshkosh.
B. interior Solid-Core Doors:
   1. Grade: Premium, with Grade A faces.
   2. Species: Select White Birch,
   3. Cut: Rotary Cut.
   4. Match between Veneer Leaves. Book Match.
   5. Assembly of Veneer Leaves on Door Faces: Center Balance match.
   6. Pair and Set Match: Provide for doors hung in same opening or separated only by mullions.

7. Room Match; Match door faces within each separate room or area of building.
8. Corridor-door faces do not need to match where they are separated by 10 feet or more.
9. Transom Match: Continuous match.
10. Exposed Vertical Edges: Same species as faces.
11. Core: Particleboard type LD-2, Mineral core.
12. Construction: Five plies. Stiles and rails are bonded to core, and then entire unit abrasive planed before veneering.

2.03 Louvers and Light Frames

A. Louvers for Fire-Rated Doors: Metal louvers with fusible link and closing device, listed and labeled for use in doors with fire-protection rating of 1-1/2 hours and less.
   1. Manufacturers: Subject to compilance with requirements, provide door manufacturers standard louver to meet rating indicated.
   2. Metal and Finish: Galvanized steel, 0.040 inch thick, factory primed for paint finish with baked enamel- or powder-coated finish.
B. Metal Frames for Light Openings. Manufacturer's standard frame formed of 0.048-inch-thick, cold-rolled steel sheet, with baked-enamel or powder-coated finish; and approved for use in doors of fire-protection rating indicated.

2.04 Fabrication

A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
   1. Comply with requirements in NFPA 80 for fire-rated doors.
B. Electrical Raceways: Provide prewired raceways with standardized plug connectors to accommodate up to twelve (12) wires as required for electrified door hardware specified in hardware sets in Division 8 Door Hardware. Provide sufficient number of concealed wires to accommodate electric function of specified hardware. Wire nut connections are not acceptable.
C. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHWDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.
   1. Coordinate with hardware mortises in metal frames to verify dimensions and alignment before factory machining.
   2. Metal Astragals. Factory machine astragals and formed-steel edges for hardware for pairs of fire rated doors,
D. Transom and Side Panels: Fabricate matching panels with same construction, exposed surfaces, and finish as specified for associated doors. Finish bottom edges of transoms and top edges of rabbeted doors same as door stiles.
   1. Fabricate door and transom panels with full-width, solid-lumbers, rabbeted, meeting rails. Provide factory-installed spring bolts for concealed attachment into jambs of metal door frames.
E. Openings. Cut and trim openings through doors in factory.
   1. Light Openings: Trim openings with moldings of material and profile indicated.

2.05 Factory Finishing

A. General: Comply with referenced quality standard for factory finishing. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
   1. Finish faces, all four edges, edges of cutouts, and mortises. Stains and fillers may be omitted on top and bottom edges, edges of cutouts, and mortises.
B. Finish doors at factory that are indicated to receive transparent finish. Field finish doors indicated to receive opaque finish.
C. Transparent Finish:
   1. Grade. Premium.
   2. Finish: WDMA TR-6 catalyzed polyurethane.
   3. Staining: Clear.
   4. Effect: Semi-filled finish, produced by applying an additional finish coat to partially fill the wood pores.

PART 3 - EXECUTION

3.01 Examination

A. Examine doors and installed door frames before hanging doors.
   1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
   2. Reject doors with defects.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 Installation

A. Hardware: For instaliation, See Division 8 Section "Door Hardware."
B. Installation Instructions: Install doors to comply with manufacturer's written instructions and the referenced quality standard, and as indicated.
   1. Install fire-rated doors in corresponding fire-rated frames according to NFPA 80.
C. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.
D. Factory-Finished Doors. Restore finish before installation if fitting or machining is required at Project site.

3.03 Adjusting

A. Operation. Re-hang or replace doors that do not swing or operate freely.

END OF SECTION

SECTION 083300

INSULATED ROLLING SERVICE DOOR

PART 1 - GENERAL

1.1 SUMMARY

A. **Section Includes:** Manual overhead insulated rolling doors

B. **Related Sections:**
1. 055000 Metal Fabrications. Door opening jamb and head members.
2. 061000 Rough Carpentry. Door opening jamb and head members.
3. 083100 Access Doors and Panels. Access doors.
4. 087000 Hardware. Padlocks. Masterkeyed cylinder.
5. 099100 Painting. Field painting.

1.2 SYSTEM DESCRIPTION

A. Design Requirements:
1. Wind Loading:
a. Supply doors to withstand up to 24.0 psf design wind load
2. Cycle Life:
a. Design doors of standard construction for normal use of up to 20 cycles per day maximum, and an overall maximum of 50,000 operating cycles for the life of the door
3. Insulated Door Slat Material Requirements:
a. Flame Spread Index of 0 and a Smoke Developed Index of 10 as tested per ASTM E84
b. Sound Transmission Class (STC) rating up to 30 for the curtain and up to 22 for the entire assembly, as tested per ASTM E90 and based on testing a complete, operable assembly
c. Minimum R-value of 8.0 (U-value of 0.125) as calculated using the ASHRAE Handbook of Fundamentals
d. Insulation to be CFC Free with an Ozone Depletion Potential (ODP) rating of zero

1.3 SUBMITTALS

A. Reference Section 013300 Submittal Procedures

1.4 QUALITY ASSURANCE

A. Qualifications:
1. Manufacturer Qualifications: ISO 9001:2008 registered and a minimum of five years experience in producing doors of the type specified
2. Installer Qualifications: Manufacturer's approval

1.5 DELIVERY STORAGE AND HANDLING

A. Reference Section 016600 Product Storage and Handling Requirements
B. Follow manufacturer's instructions

1.6 WARRANTY

A. Standard Warranty: Two years from date of shipment against defects in material and workmanship

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Manufacturer:
   1. Cornell: 24 Elmwood Avenue, Mountain Top, PA 18707. Telephone: (800) 233-8366.
   2. Cookson
B. Substitutions: Submit under provisions of Section 016000, a minimum of 10 days prior to bid date.

2.2 PRODUCT INFORMATION

A. Basis of Design: CORNELL DOORS, MODEL ESD20

2.3 MATERIALS

A. Curtain:
   1. Fabrication:
      a. Slat Material: No. 6F, (Listed Exterior/Interior):
         1) Galvanized Steel/Galvanized Steel (No Paint Finish): Manufacturer recommended gauge based on performance requirements. Minimum 24/24 gauge, Grade 40, ASTM A 653 galvanized steel zinc coating.
      a. Insulation: 7/8 inch (22 mm) foamed-in-place, closed cell urethane
      b. Total Slat Thickness: 15/16 inch (24 mm)
      c. Flame Spread Index of 0 and a Smoke Developed Index of 10 as tested per ASTM E84
      d. R-value: 8.0
      e. STC Rating: Up to 30 for the curtain and up to 22 for the entire assembly, as tested per ASTM E90 and based on testing a complete, operable assembly

   2. Exterior Slat Finish:
      a. GalvaNex™ Coating System (Stock Colors):
         1) ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation for chemical bonding baked-on base coat and gray baked-on polyester
   3. Interior Slat Finish:
      a. GalvaNex™ Coating System (Stock Colors):
         1) ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation for chemical bonding baked-on base coat and white baked-on polyester finish coat
B. Endlocks: Fabricate interlocking sections with high strength nylon endlocks on alternate slats each secured with two ¼" (6.35 mm) rivets. Provide windlocks as required to meet specified wind load.
   1. Nylon: Required up to 21'-5" width (DBG - Distance Between Guides)
C. Bottom Bar
   1. Configuration:
      a. Insulated Bottom Bar: Reinforced extruded aluminum interior face with full depth insulation and exterior skin slat to match curtain material and gauge. Minimum 4" tall x 1-1/16" thickness.
   2. Finish:
      a. Exterior: Match slats
      a. Interior: Powder coat to match slats
D. Guides:
   1. Fabrication:
      a. Minimum 3/16 inch (4.76 mm) structural steel angles. Provide windlock bars of same material when windlocks are required to meet specified wind load. Top of inner and outer guide

angles to be flared outwards to form bellmouth for smooth entry of curtain into guides. Provide removable guide stoppers to prevent over travel of curtain and bottom bar. Top 16 ½" (419.10 mm) of coil side guide angles to be removable for ease of curtain installation and as needed for future curtain service.

2. Finish:
   a. Powder Coat (Stock Colors): Phosphate treatment followed by a gray baked-on polyester powder coat; minimum 2.5 mils (0.065 mm) cured film thickness

E. Counterbalance Shaft Assembly:
1. Barrel: Steel pipe capable of supporting curtain load with maximum deflection of 0.03 inches per foot (2.5 mm per meter) of width
2. Spring Balance: Oil-tempered, heat-treated steel helical torsion spring assembly designed for proper balance of door to ensure that maximum effort to operate will not exceed 25 lbs (110 N). Provide wheel for applying and adjusting spring torque.

F. Brackets:
Fabricate from minimum 3/16 inch (5 mm) steel plate with permanently lubricated ball or roller bearings at rotating support points to support counterbalance shaft assembly and form end closures
1. Finish:
   a. Powder Coat (Stock Colors): Phosphate treatment followed by a gray baked-on polyester powder coat; minimum 2.5 mils (0.065 mm) cured film thickness

G. Hood:
Minimum [24 gauge galvanized steel] with reinforced top and bottom edges. Provide minimum 1/4 inch (6.35 mm) steel intermediate support brackets as required to prevent excessive sag.
1. Finish:
   a. GalvaNex™ Coating System (Stock Colors):
      1) ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation for chemical bonding baked-on base coat and white baked-on polyester finish coat

H. Weatherstripping:
1. Bottom Bar:
   a. Manually Operated Doors: Replaceable, bulb-style, compressible EDPM gasket extending into guides
2. Guides: Replaceable vinyl strip on guides sealing against both sides of curtain

2.4 OPERATION

A. Manual Chain Hoist: Provide chain hoist operator with endless steel chain, chain pocket wheel and guard, geared reduction unit, and chain keeper secured to guide. Fabricate gear box to completely enclose operating mechanism and be oil-tight.

2.5 ACCESSORIES

A. Padlockable chain keeper on guide. (Manual Chain operated.)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates upon which work will be installed and verify conditions are in accordance with approved shop drawings
B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates
C. Commencement of work by installer is acceptance of substrate

3.2 INSTALLATION

A. General: Install door and operating equipment with necessary hardware, anchors, inserts, hangers and supports
B. Follow manufacturer's installation instructions

3.3 ADJUSTING

A. Following completion of installation, including related work by others, lubricate, test, and adjust doors for ease of operation, free from warp, twist, or distortion

3.4 CLEANING

A. Clean surfaces soiled by work as recommended by manufacturer
B. Remove surplus materials and debris from the site

3.5 DEMONSTRATION

A. Demonstrate proper operation to Owner's Representative
B. Instruct Owner's Representative in maintenance procedures

END OF SECTION

SECTION 083310
OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES
- A. Overhead Coiling Counter Doors

1.3 RELATED SECTIONS
- A. Section 051000 - Structural Metal Framing.
- B. Section 061000 - Rough Carpentry.
- C. Section 099000 - Painting and Coating.

1.4 REFERENCES
- A. ASTM A480/A480M-04; 2004 - Standard Specification for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip.

1.5 SUBMITTALS
- A. Submit under provisions of Section 013300 - SUBMITTALS.
- B. Product Data: For each type and size of overhead coiling door and accessory.
  1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
- C. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer’s product data.
  1. Include plans, elevations, sections, and mounting details
  2. Include details of equipment assemblies and indicate dimensions, required clearances, and components.
  3. Provide BIM models upon request.
- D. Samples for Initial Selection: Upon request, provide manufacturer’s finish charts showing full range of colors and textures available for units with factory applied finishes.
  1. Include similar samples of accessories involving color selection
- E. Closeout Submittals:
  1. Operation and maintenance data.

1.6 QUALITY ASSURANCE
- A. Manufacturer Qualifications:
  1. Company specializing in the manufacturing of products specified in this section and with a minimum of five years experience.
- B. Installer Qualifications: Installer shall be authorized and qualified to install overhead door systems on the type and scope of project specified.

1.7 DELIVERY, STORAGE, AND HANDLING
- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of all materials in accordance with federal, state and local laws.

1.8 PROJECT CONDITIONS
- A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside

manufacturer's absolute limits.

1.9 COORDINATION

A. Coordinate with other operations and installation of adjacent materials to avoid damage to installed materials.

1.10 WARRANTY

A. Warranty: Manufacturer’s warranty that all parts and components, except counterbalance spring and finish, are to be free from defects in materials and workmanship for 5 years. Counterbalance springs to be warrantied for 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: C.H.I. Overhead Doors, which is located at: 1485 Sunrise Dr. ; Arthur, IL 61911; Toll Free Tel: 800-590-0559; Fax: 217-543-4454; Email: AIA@chiohd.com; Web: www.chiohd.com.

B. Requests for substitutions will be considered in accordance with provisions of Section 016000 - Product Requirements.

2.2 PERFORMANCE REQUIREMENTS

A. Overhead Coiling Counter Doors

1. Operation: Design complete door assembly including operator for usage of up to 20 cycles per day.

B. Source Limitations: Provide overhead coiling doors from one manufacturer for each type of door. Provide operators and other accessories from source acceptable to overhead coiling door manufacturer.

2.3 MATERIALS

A. Galvanized Steel Sheet:

1. Galvanized commercial steel, (CS type) per ASTM A653/A653M, G90 and G60 coating class.

2.4 DOOR ASSEMBLY

A. Overhead Coiling Counter Doors

1. Basis of Design: C.H.I. Overhead Doors model 6522.
2. Construction:
   a. Curtain: Constructed from interlocking slats formed from the following.
      1) Material:
         a) 22 gauge galvanized steel.
            i) Finish: Hot-dipped galvanized in accordance with ASTM A653 and with baked on enamel primer coat and polyester finish coat.
               a. Polyester Finish: Gray
      2) Profile:
         a) Flat, non-insulated, 1-1/2 inches high by 1/2 inch deep.
      3) End locks: Nylon, attached to every other slat to act as wearing surface and prevent lateral movement.
      4) Bottom bar:
         a) Extruded aluminum tube type bottom bar.
            i) Bottom Bar Finish
               a. Clear Anodized Aluminum
   b. Guides: Two piece, box shaped guides Guide Material:
      a) Aluminum
         i) Guide Finish:
            a. Clear Anodized Aluminum
   c. Head Plate: Rectangular steel plate, with precision sealed ball bearings supporting drive side

axle.

d. Barrel Assembly: Steel pipe sized for maximum deflection under full load not to exceed 0.03" per foot of span with threaded rings or lugs welded to barrel assembly for curtain attachment.

e. Springs: Spring tension assembly supported within barrel by precision ball bearings. Curtain weight counterbalanced by oil tempered, helically wound torsion springs; grease packed and mounted on steel torsion shafts with cast spring plug.
   1) Designed for usage up to 20 cycles per day.

f. Hood: Shaped to fit within the head plates and with intermediate supports as required.
   1) Hood Material:
      a) Minimum 24 gauge galvanized steel
         i) Hood finish:
            a. Match curtain finish

g. Weather Seal:
   1) Tubular vinyl bottom seal

h. Locking Mechanism:
   1) Cylinder lock.
      a) Keyed opposite coil side of door with thumb turn on coil side.
      b) Keyed on both sides of the door.

3. Mounting:
   a. Face of wall and above lintel.
4. Manual Operation
   a. Manual push up.

PART 3 - EXECUTION

2.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for substrate construction and other conditions affecting performance of the work.
B. Examine locations of electrical connections.
C. Proceed with installation only after all unsatisfactory conditions have been corrected.

2.2 INSTALLATION

A. Install in accordance with manufacturer's instructions.
B. Anchor to adjacent construction without distortion or stress.
C. Fit and align door and shutter assembly including hardware, plumb, level and square to ensure smooth operation.

2.3 ADJUSTING

A. Adjust hardware and moving parts so that doors operate smoothly throughout full operating range.

END OF SECTION

SECTION 084113

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1 - GENERAL

1.1 Summary

A. Related Documents: Conditions of the Contract, Division 1 - General Requirements, and Drawings apply to Work of this Section.
B. Section Includes:
   1. Storefront system, complete with reinforcing, fasteners, anchors, and attachment devices.
   2. Accessories necessary to complete work.
C. Products Furnished But Not installed Under This Section:
   1. Anchoring devices that are built into masonry.
   2. Anchoring devices that are cast in concrete.
D. Related Sections:
   1. Section 055000 - Metal Fabrications.
   2. Section 061000- Rough Carpentry.
   3. Section 079200 - Joint Sealers.
   4. Section 087100 - Door Hardware.
   5. Section 088000 - Glazing.

1.2 References

A. Aluminum Association (AA):
   1. DAF-45 Designation System for Aluminum Finishes.
B. American Architectural Manufacturers Association (AAMA):
   1. 501 Methods of Test for Exterior Waits.
   2. 501.2 Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems.
   3. 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
   4. 611 Voluntary Specification for Anodized Architectural Aluminum.
   5. 701 Voluntary Specifications for Pile Weatherstripping and Replaceable Fenestration Weatherseals.
   6. 1503 Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors, and Glazed Wall Sections.
   7. 1801 Voluntary Specification for the Acoustical Rating of Windows, Doors, and Glazed Wall Sections.
   8. CW-10 Care and Handling of Architectural Aluminum From Shop to Site.
   9. SFMT Aluminum Storefront and Entrance Manual.
C. American Society for Testing and Materials (ASTM).
   1. A36 Structural Steel.
   2. A123 Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
   3. B209 Aluminum and Aluminum - Alloy Sheet and Plate.
   4. B221 Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
   5. E.283 Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors.
   6. E330 Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
   7. E33 : Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
D. Glass Association of North America (GANA):
   1. Glazing Manual
E. Federal Specifications (FS).
   1. TT-P-641G(1) Primer Coating, Zinc Dust-Zinc Oxide (For Galvanized Surfaces).
   2. TT-P-645A Primer, Paint, Zinc Chromate, Alkyd Type.
F. Steel Structures Painting Council (SSPC).
   1. Cold-Applied Asphalt Mastic (Extra Thick Film}.

1.3 System Requirements

A. Design Requirements:
1. Drawings are diagrammatic and do not purport to identify nor solve problems of thermal or structural movement, glazing, anchorage, or moisture disposal.
2. Requirements shown by details are intended to establish basic dimension of units, sight lines and profiles of members.
3. Provide concealed fastening.
4. Provide entrance and storefront systems, including necessary modifications, to meet specified requirements and maintaining visual design concepts.
5. Attachment considerations are to take into account site peculiarities and expansion and contraction movements so there is no possibility of loosening, weakening or fracturing connection between units and building structure or between units themselves.
6. Anchors, fasteners and braces shall be structurally stressed not more than 50% of allowable Stress when maximum loads are applied.
7. Provide for expansion and contraction due to structural movement without detriment to appearance or performance.
8. Framing systems shall accommodate expansion and contraction movement due to surface temperature differentials of 180 degrees F without causing bucking, stress on glass, failure of joint seals, excessive stress on structural elements, reduction of performance, or other detrimental effects.
9. Stresses placed on structural silicone sealants shall be kept within sealant manufacturer's recommended maximum.

B. Performance Requirements:
1. Wind loads: Provide framing system capable of withstanding wind load design pressures of 24.0 psf acting inward and 24.0 psf acting outward. The design pressures are based on the International Building Code (IBC) 2012 Edition. Refer to structural drawings.
2. Air infiltration: Air leakage through fixed light areas of storefront shall not exceed 0.06 cfm per Square foot of surface area when tested in accordance with ASTM E283 at differential static pressure of 6.24 psf.
3. Water infiltration: No uncontrolled leakage when tested in accordance with ASTM E331 at test pressure of 10 psf as defined in AAMA 501.
4. Deflection: Maximum calculated deflection of any framing member in direction normal to plane of wall when subjected to specified design pressures for spans up to and including 13’-6” shall be limited to [1/175] of its clear span and for spans greater than 13’-6” deflection shall be limited to [1/240) of its clear span + 1/4”, except that maximum deflection of members supporting plaster surfaces shall not exceed 1/360 of its span.
5. Thermal Transmittance (U-factor). When tested to AAMA Specification 1503, the thermal transmittance (U-factor) shall not be more than:
    a. Glass to Center – 0.63
6. Condensation Resistance (CRF): When tested to AAMA Specification 1503, the condensation resistance factor shall not be less than:
    a. Glass to Center – 58 frame and 61 Glass
7. Sound Transmission Class (STC). When tested to AAMA Specification 1801, the STC Rating shall not be less than:
    a. Glass to Center-37 (laminated)
8. Entrance Doors:
    a. U-Factor 1.10
    b. SHGC 0.40

C. Testing Requirements: Provide components that have been previously tested by an independent testing laboratory.

1.4 Submittals

A. General: Submit in accordance with Section 013300.
B. Product Data:
1. Submit manufacturer's descriptive literature and product specifications.
2. Include information for factory finishes, hardware, accessories, and other required components.
3. Include color charts for finish indicating manufacturer's standard colors available for selection.

C. Shop Drawings:
   1. Submit shop drawings covering fabrication, installation and finish of specified systems.
   2. Include following:
      a. Fully dimensioned plans and elevations with detail coordination keys.
      b. Locations of exposed fasteners and joints.
   3. Provide detailed drawings of
      a. Composite members.
      b. joint connections for framing systems and for entrance doors.
      c. Anchorage.
      d. System reinforcements.
      e. System expansion and contraction provisions.
      f. Glazing methods and accessories.
      g. Internal sealant requirements.
      h. Thermal improvements.
   4. Schedule of finishes

D. Samples:
   1. Submit manufacturer's standard samples indicating quality of finish,
   2. Where normal texture or color variations are expected, include additional samples illustrating range of variation.
   3. Submit samples for each type of glass, 12 x 12 inch size.

E. Test Reports:
   1. Standard Systems. Submit certified copies of previous test reports substantiating performance of system in lieu of retesting. Include other supportive data as necessary.

F. Qualification Data:
   1. Submit installer qualifications verifying years of experience.

G. Manufacturer's Instructions:
   1. Submit manufacturer's printed installation instructions.

1.5 Quality Assurance

A. Single Source Responsibility:
   1. To ensure quality of appearance and performance, obtain materials for systems from either a single manufacturer or from manufacturer approved by systems manufacturer.

B. Installer Qualifications. Certified in writing by system manufacturer as qualified for installation of specified systems.

C. Perform Work in accordance with AAMA SFM1 and manufacturer's written instructions.

1.6 Delivery, Storage, and Handling

A. Comply with requirements of Section 016000.

B. Protect finished surfaces as necessary to prevent damage.

C. Do not use adhesive papers or sprayed coatings that become firmly bonded when exposed to Sun.

D. Do not leave coating residue on any surfaces.

E. Replace damaged units.

1.7 Warranty

A. Provide warranties in accordance with Section 01700.

B. Provide written warranty in form acceptable to Owner jointly signed by manufacturer, installer and Contractor warranting work to be watertight, free from deflective materials, defective workmanship, glass breakage due to defective design, and agreeing to replace components which fail within 1 year from date of Substantial Completion.

C. Warranty shall cover following:
   1. Complete watertight and airtight system installation within specified tolerances.
   2. System is structurally sound and free from distortion.

PART 2 - PRODUCTS

2.1 Manufacturers and Products

A. Subject to compliance with requirements indicated, provide products by one of the following:
   1. Oldcastle Building Envelope - Series 3000XT
   2. Kawneer Company - Trifab 451T
B. Substitutions: Submit under provisions of Section 016000, a minimum of 10 days prior to bid date.
C. Storefront Framing System (Basis of Design):
   1. Series FG-3000XT. Thermal MultiPlane, glass set to the center planes, thermally broken, exterior loaded, 2" x 4-1/2" mullion profile. This system uses a poured-in-place polyurethane thermal pocket to create its thermal break. This system accommodates 1" glass thickness.

2.2 Framing Materials and Accessories

A. Aluminum:
   1. ASTM B221, alloy 6063-T5 for extrusions;
   2. ASTM B209, alloy 5005-H16 for sheets,
   3. Other alloys and temper recommended by manufacturer appropriate for specified finish,
B. Internal Reinforcing:
   1. ASTM A36 for carbon steel.
   2. Shapes and sizes to suit installation.
   3. Steel components factory coated with alkyd type zinc chromate primer complying with FSTT-P 645.
C. Anchorage Devices: -
   1. Manufacturer's standard formed or fabricated steel or aluminum assemblies of shapes, plates, bars or tubes.
   2. Hot-dip galvanize steel assemblies after fabrication; comply with ASTM A123, 2.0 ounce minimum coating.
D. Fasteners:
   1. Aluminum, non-magnetic stainless steel or other non-corrosive materials compatible w/ items being fastened.
   2. Provide concealed fasteners wherever possible.
   3. For exposed locations, provide Phillips flathead screws with finish matching item fastened.
   4. For concealed locations, provide manufacturer's standard fasteners.
E. Expansion Anchor Devices: Lead-shield or toothed-steel, drifled-in, expansion bolt anchors.
F. Protective Coatings: Cold-applied asphalt mastic complying with SSPC, compounded for 30 mil thickness for each coat, or alkyd type zinc chromate primer complying with FSTT-P-645.
G. Touch-Up Primer for Galvanized Components: Zinc oxide conforming with FSTT-P-641.
H. Glazing Gaskets:
   1. Compression type design, replaceable, molded or extruded, of neoprene, polyvinyl chloride (PVC), or ethylene propylene diene monomer (EPDM).
   2. Profile and hardness as required to maintain uniform pressure for watertight seal.
I. Weatherstripping:
   1. Wool pile conforming to AAMA 701.2.
   2. Provide EPDM or vinylblade gasket weatherstripping in bottom door rail, adjustable for contact with threshold.
J. Internal Sealants and Baffles

2.3 Glass and Glazing Accessories

A. Refer to Section 088000

2.4 Fabrication

A. Coordination of Fabrication:
   1. Check actual frame or door openings required in construction work by accurate field measurements before fabrication.
   2. Fabricate units to withstand loads that will be applied when system is in place.
B. General
   1. Conceal fasteners wherever possible.
   2. Reinforce work as necessary for performance requirements, and for support to structure.
   3. Separate dissimilar metals and aluminum in contact with concrete utilizing protective coating or pre-formed separators, which will prevent contact and corrosion.

4. Comply with Section 08810 for glazing requirements.

C. Aluminum Framing:
1. Provide members of size, shape and profile indicated, designed to provide for glazing from exterior.
2. Provide manufacturer's standard thermal break between exterior and interior aluminum surfaces.
3. Fabricate frame assemblies with joints straight and tight fitting.
4. Reinforce internally with structural members as necessary to support design loads.
5. Maintain accurate relation of planes and angles, with hairline fit of contacting members.
6. Seal horizontals and direct moisture accumulation to exterior.
7. Provide flashings and other materials used internally or externally that are corrosive resistant, non-staining, non-bleeding and compatible with adjoining materials.

8. Provide manufacturer's extrusions and accessories to accommodate expansion and contraction due to temperature changes without detrimental to appearance or performance.

D. Welding:
1. Comply with recommendations of the American Welding Society,
2. Use recommended electrodes and methods to avoid distortion and discoloration.
3. Grind exposed welds smooth and flush with adjacent surfaces; restore mechanical finish.

E. Flashings:
1. Form from sheet aluminum with same finish as extruded sections.
2. Apply finish after fabrication.
3. Material thickness as required to suit condition without deflection or "oil-canning".

2.5 Entrance Door System

A. Standard Door per Storefront Manufacturer
1. Finish hardware to be furnished as per section 087100 Door Hardware, installed under this section.
2. Hardware provide under this sections will be manufactures weather-stripping,

2.6 Finishes

A. Organic Coating (high performance fluorocarbon):
1. Comply with requirements of AAMA2605.
2. Kynar 500 standard manufacturer colors.

PART 3 - EXECUTION

3.1 Examination

A. Examine conditions and proceed with Work in accordance with Section 014000.

3.2 Installation

A. Erection Tolerances:
1. Limit variations from plumb and level:
a. 1/8 inch in 10'-0" vertically
b. 1/8 inch in 20'-0" horizontally
2. Limit variations from theoretical locations:
a. 1/4 inch for any member at any location
3. Limit offsets in theoretical end-to-end and edge-to-edge alignment:
a. 1/16 inch from flush surfaces not more than 2 inches apart or out-of-flush by more than 1/4 inch.

B. Install doors and hardware in accordance with manufacturer's printed instructions.
C. Set units plumb, level and true to line, without warp or rack of frame.
D. Anchor securely in place, allowing for required movement, including expansion and contraction.
E. Separate dissimilar materials at contact points, including metal in contact with masonry or concrete surfaces, with bituminous paint or preformed separators to prevent contact and corrosion.
F. Set sill members in bed of sealant.
G. Set other members with internal sealants and baffles to provide weather-tight construction.
H. Coordinate installation of perimeter sealant and backing materials between assemblies and adjacent construction in

accordance with requirements of Section 07920.

I. Glazing: Refer to requirements of Section 088000.

3.3 Adjusting

A. Test door operating functions. Adjust closing and latching speeds and other hardware in accordance with manufacturer's instructions to ensure smooth operation.

3.4 Cleaning

A. Çlean surfaces in compliance with manufacturer's recommendations, remove excess mastic, mastic smears, foreign materials and other unsightly marks.

B. Clean metal surfaces exercising care to avoid damage.

END OF SECTION

SECTION 08 71 00

FINISH HARDWARE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Work under this section comprises of furnishing hardware specified herein and noted on drawings for a complete and operational system, including any electrified hardware components, systems, controls and hardware for aluminum entrance doors. Any door shown on the drawing and not specifically referenced in the hardware sets shall be provided with identical hardware as specified on other similar openings and shall be included in the General Contractor's base bid. All fire rated door shall be provided with fire rated hardware as required by local code Authority as part of the General Contractor's base bid. The hardware supplier shall verify all cylinder types specified for locking devices supplied as part of the door system with the door manufacturer and/or door supplies.

B. The General Contractor shall notify the Architect in writing of any discrepancies (five (5) days prior to bid date) that could and/or would result in hardware being supplied that is none functional, hardware specified and/or hardware that has not been specified that will result in any code violations and any door that is not covered in this specification. Failure of the General Contractor to address any such issue could be considered acceptance of the hardware specified and any and all discrepancies could be corrected at the General Contractor's expense.

C. Items include but are not limited to the following:

1. Hinges - Pivots
2. Flush Bolts
3. Exit Devices
4. Locksets and Cylinders
5. Push Plates - Pulls
6. Coordinators
7. Closers
8. Kick, Mop and Protection Plates
9. Stops, Wall Bumpers, Overhead Controls
10. Electrified Hold Open Devices
11. Thresholds, Seals and Door Bottoms
12. Silencers
13. Miscellaneous Trim and Accessories

1.02 RELATED DOCUMENTS, drawings and general provisions of contract, including General and Supplementary Conditions, and Division 1 Specification sections, apply to this section.

1.03 RELATED WORK specified elsewhere that should be examined for its effect upon this section:

A. Section 06 20 00 - Finish Carpentry
B. Section 08 11 13 – Steel Doors and Frames
C. Section 08 14 16 – Flush Wood Doors
D. Sections 08 31 13 – Access Doors
E. Section 08 39 00 – Watertight Doors
E. Section 08 41 13 – Aluminum Entrances, Storefront and Window Framing

F. Sections 08 80 00 – Glass and Glazing
G. Sections 09 91 00 - Painting
H. Division 26 – Electrical
I. Division 28 – Access Control

1.04 REFERENCES SPECIFIED in this section subject to compliance as directed:

A. NFPA-80 - Standard for Fire Doors and Windows
B. NFPA-101 - Life Safety Code
C. ADA - The Americans with Disabilities Act - Title III - Public Accommodations
D. ANSI-A 117.1 - American National Standards Institute - Accessible and Usable Buildings and Facilities
E. ANSI-A 156.5 - American National Standards institute -Auxiliary Locks and Associated Products
F. UFAS - Uniform Federal Accessibility Standards
G. UL - Underwriter's Laboratories
H. WHI - Warnock Hersey International, Testing Services
I. State and Local Codes including Authority Having Jurisdiction
J. Positive Pressure UL10C
K. IBC-2015 – International Building Code
L. NFPA-70 – International Electrical Code

1.05 SUBMITTALS

A. HARDWARE SCHEDULES submit copies of schedule in accordance with Division 1, General Requirements. Schedule to be in vertical format, listing each door opening, including: handing of opening, all hardware scheduled for opening or otherwise required to allow for proper function of door opening as intended, and finish of hardware. At doors with door closers or door controls include degree of door opening. Supply the schedules all Finish Hardware within two (2) weeks from date purchase order is received by the hardware supplier.

B. Submit manufacturer's cut/catalog sheets on all hardware items and any required special mounting instructions with the hardware schedule.

C. Certification of Compliance:

1. Submit any information necessary to indicate compliance to all of these specifications as required.
2. Submit a statement from the manufacturer that electronic hardware and systems being supplied comply with the operational descriptions exactly as specified.

D. Submit any samples necessary as required by the Architect.

E. Templates for finish hardware items to be sent to related door and frame suppliers within three (3) working days of receipt of approved hardware schedule.

F. Doors and Frames used in positive pressure opening assemblies shall meet UL10C in areas where this specification includes Seals for smoke door.

1.06 QUALITY ASSURANCE

A. Hardware supplier to be a qualified, Factory Authorized, direct distributor of the products to be furnished. In addition, the supplier to have in their regular employment an AHC or AHC /CDC and/or a person of equivalent experience

(minimum fifteen (15) years in the industry) who will be made available at reasonable times to consult with the Architect/Contractor and/or the City of McAllen Representative regarding any matters affecting the finish hardware on this project.

B. All hardware used in labeled fire or smoke rated openings to be listed for those types of openings and bear the identifying label or mark indicating UL. (Underwriter's Laboratories) approved for fire. Exit devices in non-labeled openings to be listed for panic.

1.07 DELIVERY, HANDLING AND PACKAGING

A. Furnish all hardware with each unit clearly marked and numbered in accordance with the hardware schedule. Include door and item number for each.

B. Pack each item of hardware completes with all necessary parts and fasteners.

C. Properly wrap and cushion each item to prevent scratches and dents during delivery and storage.

1.08 SEQUENCING AND SCHEDULING

Any part of the finish hardware required by the frame or door manufacturers or other suppliers that is needed in order to produce doors or frames is to be sent to those suppliers in a timely manner, so as not to interrupt job progress.

1.09 WARRANTY

All finish hardware shall be supplied with a two- (2) year warranty against defects in materials and workmanship, commencing with substantial completion of the project except as follows:

1. All Closers are to have a thirty- (30) year written warranty.
2. All Exit Devices (Grade 1) are to have a three- (3) year written warranty.
3. All Locksets (Grade 1) are to have a ten- (10) year written warranty.
4. All Continuous Hinges are to have a ten- (10) year written warranty.

PART 2 – PRODUCTS

2.01 FASTENERS

A. Furnish with finish hardware all necessary screws, bolts and other fasteners of suitable size and type to anchor the hardware in position for a long life under hard use.

B. Furnish fastenings where necessary with expansion shields, toggle bolts and other anchors designated by the Architect according to the material to which the hardware is to be applied and the recommendations of the hardware manufacturer. All closers and exit devices on labeled wood doors shall be through-bolted if required by the door manufacturer. All thresholds shall be fastened with wood screws and plastic anchors. Where specified in the hardware sets, security type fasteners of the type called for are to be supplied.

C. Design of all fastenings shall harmonize with the hardware as to material and finish.

D. All hardware shall be installed with the Manufacturers standard screws as provided. The use of any other type of fasteners shall not be permitted. The general contractor shall provide wood blocking in all stud walls specified and/or scheduled to receive wall stops, No Exception.

2.02 ENVIRONMENTAL CONCERN FOR PACKAGING

The hardware shall ship to the job site is to be packaged in biodegradable packs such as paper or cardboard boxes and wrapping.

2.03 HINGES

A. All hinges to be of one manufacturer as hereafter listed for continuity and consideration of warranty. Provide one of the following manufacturers Ives, Hager or Stanley.

B. Unless otherwise specified provide five-knuckle, heavy-duty, button tip, full mortise template type hinges with non-rising loose pins. Provide non-removable pins for out swinging doors at secured areas or as called for in this specification (Refer to 3.02 Hardware Sets).

C. Provide all out-swinging doors with non-removable pins or security studs as called for in 3.02 Hardware Sets. Furnish three (3) hinges up to 90 inches high and one (1) additional hinge for every 30 inches or fraction thereof.

D. Furnish three (3) hinges up to 90 inches high and one (1) additional hinge for every 30 inches or fraction thereof.

E. Provide size 4½” x 4½” for all 1¾” thick doors up to and including 36 inches wide. Doors over 1¾” through 2¼” thick, use 5” x 5” hinges. Doors over 36 inches use 5” x 4½” unless otherwise noted in 3.02 Hardware Sets.

F. Were required to clear the trim and/or to permit the doors to swing 180 degrees furnish hinges of sufficient throw.

G. Provide heavy weight hinges on all doors over 36 inches in width.

H. At labeled door’s steel or stainless steel, bearing-type hinges shall be provided. For all doors equipped with closers provide bearing-type hinges.

2.04 LOCK AND LOCK TRIM

A. All of the locksets, latch sets, and trim to be of one manufacturer as hereafter listed for continuity of design and consideration of warranty. Locksets specified are Falcon “T” series with the Quantum lever and shall be provided as specified or equal products manufactured by Schlage or Best.

B. Provide metal wrought box strike boxes and curved lip strikes with proper lip length to protect trim of the frame, but not to project more than 1/8 inch beyond frame trim or the inactive leaf of a pair of doors.

C. Mechanical Locks shall meet ANSI Operational Grade 1, Series 4000 as specified.

1. Hand of lock is to be field reversible or non-handed.
2. All lever trim is to be through-bolted through the door.

3. Provide all pairs of doors and specific single doors with a ¾" latch bolt throw as specified in the hardware sets.

2.05 CYLINDERS AND KEYING

A. Provide all exterior and interior locks or Exit Devices requiring cylinders keyed to the existing Small Format Interchangeable Core Master Key System and which also complies with performance requirements of ANSI A156.5. All keys shall be of nickel silver material only. The hardware supplier shall meet with the General Contractor, the Architect and the City of McAllen Representative at the project jobsite to determine all permanent keying requirements.

B. Cylinders shall be factory keyed and factory maintained as directed by the City of McAllen Representative and the Architect. Provide three- (3) keys per cylinder and six- (6) master keys per master used.

C. Factory stamp all keys "Do not duplicate" and with key symbol as directed by the City of McAllen Representative. Visual key control shall be provided on all permanent keys and cylinders.

D. Furnish all locks, cylinders and Exit devices with temporary keyed construction cores for the duration of construction. Provide ten (10) construction keys and two (2) construction control keys total. The general contractor shall within thirty (30) days of the installation of permanent cores return all construction cores to the hardware supplier for full credit.

2.06 EXIT DEVICES

A. All exit devices and trim, including electrified items, to be of one manufacturer as hereafter listed and in the hardware sets for continuity of design and consideration of warranty; electrified devices and trim to be the same series and design as mechanical devices and trim.

B. Exit Devices to be "UL" listed for life safety. All exit devices for labeled doors shall have "UL" label for "Fire Exit Hardware". All devices mounted on labeled wood doors are to be through-bolted or per the manufacturer's listing requirements. All devices shall conform to NFPA 80 and NFPA 101 requirements.

C. All exit devices to be of a heavy duty, chassis mounted design, with a one-piece removable covers, eliminating necessity of removing the device from the door for standard maintenance and keying requirements.

D. All trims to be through-bolted to the lock stile case. Lever design to be the same as specified with the lock sets.

E. Exit Devices shall be the modern push rail design. All exit devices shall be mounted with sex bolts.

F. All devices shall carry a three- (3) year warranty against manufacturing defects and workmanship. Exit devices shall be certified by an independent testing lab for a minimum of 1,000,000 cycles.

G. Furnish roller strikes for all rim and surface vertical rod exit devices. Internal springs shall be coil compression type. Furnish security dead latching for all

active latch bolts. Latch bolts to have self-lubricating coating to reduce friction and wear. Plated latch bolts not accepted.

H. All Exit Devices shall be field modifiable as incorporate an Electric Latch Retraction Feature without the purchase of new Panic Exit Hardware.

J. Exit Devices shall be the Von Duprin “99 & 33” series as specified or acceptable products manufactured by Falcon or Precision.

2.07 SURFACE MOUNTED DOOR CLOSERS

A. All closers for this project shall be the products of a single manufacturer for continuity of design and consideration of warranty. All door closers shall be mounted as to achieve the maximum degree of opening (trim permitting).

B. All closers to be heavy duty, surface-mounted, fully hydraulic, rack and pinion action with high strength aluminum cylinder to provide control throughout the entire door opening and closing cycle.

C. Size all closers in accordance with the manufacturer’s recommendations at the factory.

D. All closers to have adjustable spring power sizes 1 or 2 through 4 or 6 and separate tamper resistant, brass, non-critical regulating screw valves for closing speed, latching speed and back-check control as a standard feature unless specified other wise.

E. All closer covers to be rectangular, full cover type of non-ferrous, non-corrosive material painted to match closer. Provide closer covers only if provided as a standard part of the door closer package.

F. Closers shall have heavy-duty arms. All closer arms shall be of sufficient length to accommodate the reveal depth and to insure proper installation. The hardware supplier shall provide any and all required brackets, spacers or filler plates as required by the manufacture for a proper and functional installation as part of their base bid.

G. Supply appropriate arm assembly for each closer so that closer body and arm are mounted on non-public side of door opening and on the interior side of exterior openings, except where required otherwise in the hardware sets.

H. Provide closers with special application and heavy-duty arms as specified in the hardware sets or as otherwise called for to insure a proper operating, long lasting opening. Drop plates and any additional mounting brackets required for the proper installation of the door closer shall be included in the hardware supplier’s base bid.

I. Finish: Baked on Powder Coated finish shall match other hardware.

J. Provide and mount all door closers with sex bolts as provided by the manufacturer.

K. Closers shall be LCN 4050 and 1450 series as specified or equal products manufactured by Falcon or Sargent.

2.08 DOOR STOPS AND HOLDERS

A. Door stops are to be furnished for every door leaf. Every door is to have a floor, wall, or an overhead stop.

B. Place doorstops in such a position that they permit maximum door swing, but do not present a hazard of obstruction. Furnish floor strikes for floor holders of proper height to engage holders of doors.

C. Where overhead stops and holders are specified, or otherwise required for proper door operation, they are to be heavy duty and of extruded brass, bronze or stainless steel with no plastic parts as specified**.** The General Contractor shall provide wood blocking in all stud walls specified and scheduled to receive wall stops.

D. Finish: Shall match other hardware where available.

E. Acceptable Products

1. Floor and wall stops as listed in hardware sets. Equivalent products as manufactured by Ives, ABH, Glynn Johnson and Trimco are acceptable.

2.09 PUSH PLATES, DOOR PULLS, AND KICKPLATES

A. All push plates, door pull, kick plates and other miscellaneous hardware as listed in hardware sets. Equivalent products as manufactured by Ives, Hager and Trimco are acceptable.

B. Kick plates to be 10 inches high and Mop plates to be 6 inches high, both by 1-½ inches or 1 inch less than door width (LDW) as specified. They are to be of 16 gauge thick base metal. For door with louvers or narrow bottom rails, kick plate height to be 1 inch less dimension shown from the bottom of the door to the bottom of the louver or glass.

C. Where required armor plates, edge guards and other protective hardware shall be supplied in sizes as scheduled in the hardware sets.

D. Finish: Same as other hardware where available.

2.10 FLUSH BOLTS AND COORDINATORS

A. Provide Flush bolts with Dust Proof Strikes as indicated in the individual hardware sets by Ives, Hager and Trimco are acceptable. Finish shall match the adjacent hardware.

2.11 THRESHOLDS AND SEALS

A. Provide materials and finishes as listed in hardware sets. Zero products has been specified to set a high level of quality, equivalent product by manufactured by National Guard Products and Pemko shall be acceptable. All thresholds must be in accordance with the requirements of the ADA and ANSI A117.1.

B. Provide thresholds with wood screws and plastic anchors. Supply all necessary anchoring devices for weather strip and sound seal.

C. Seals shall comply with requirements of U.B.C. 7-2-97 and UL10C. All thresholds, door bottoms and weather strip inserts shall be a silicone based

product as specified in 3.02 Hardware Sets. Other materials used shall be rejected, unless originally specified.

D. Seals shall comply with the requirements of the Wood Door Manufacturer's certification requirements.

E. All thresholds shall be provided with none slip coating as specified in the hardware sets.

2.12 FINISHES

A. Finishes for all hardware are as required in this specification and the hardware sets.

B. Special care is to be taken to make uniform the finish of all various manufactured items.

2.13 DOOR SILENCERS

A. Provide door silencers at all openings without gasket. Provide two- (2) each at pair of doors and three- (3) or four- (4) each for each single door (coordinate with the frame manufacturer).

2.14 PROPRIETARY PRODUCTS

A. References to specific products are used to establish quality standards of utility and performance. Unless otherwise approved provide only the specified product.

B. All other materials, not specifically described, but required for a complete and proper finish hardware installation, are to be selected by the Contractor, subject to the approval of the Architect and the City of McAllen Representative.

C. Architect and the City of McAllen Representative reserve the right to approve all the substitutions proposed for this specification. All requests for substitution to be made prior to bid in accordance with Division 1, General Requirements, and are to be in writing, hand delivered to the Architect. Two (2) copies of the manufacturer's brochures and a physical sample of each item in the appropriate design and finish shall accompany requests for substitution.

PART 3 - EXECUTION

3.01 INSTALLATION AND SERVICE ITEMS OF FINISH HARDWARE

A. All finish hardware shall be installed by an experienced finish hardware installer with at least ten (10) years experience after a pre-installation meeting between the contractor, hardware Manufacturers representative, the hardware supplier, the hollow metal supplier and the wood door supplier. The finish hardware installer shall be responsible for the proper installation and function of all doors and hardware.

B. The hardware supplier's office and/or warehouse shall be located within a one hundred twenty five (125) mile radius of the project site as to better service the general contractor and the City of McAllen Representative during the course of this project.

C. Check hardware against the reviewed hardware schedule upon delivery. Store the hardware in a dry and secure location to protect against loss and damage.

D. Install finish hardware in accordance with approved hardware schedule and manufacturers' printed instructions. Pre-fit hardware before finish is applied to door; remove and reinstall after finish is complete and dry. Install and adjust hardware so that parts operate smoothly, close tightly, and do not rattle.

E. Mortise and cutting to be done neatly, and evidence of cutting to be concealed in the finished work. Protect all Finish hardware from scratching or other damage.

F. The hardware supplier, general contractor and hardware installer shall after three (3) months of the City of McAllen Representative acceptance of the facility perform an on site survey of the finish hardware. Any item of finish hardware found to be defective or out of adjustment shall be replaced or adjusted for the proper function and operation of the door assembly at the contractor's, supplier's and/or installer's expense. The hardware supplier shall provide a written report of any and all affected items to the Architect and the City of McAllen Representative (No Exceptions). The scheduled inspection date for the on site inspection and adjustment of finish hardware shall be provided to the Architect as a part of the general contractor and hardware supplies close-out documentation for this project.

3.02HARDWARE SETS
SPEXTRA: 283617
HARDWARE SET # 01 - EXTERIOR - STOREFRONT ACCESS CONTROLLED
DOORS #
01 08 09

EACH TO HAVE:

2	EA	CONTINUOUS HINGE	112HD EPT-DOOR HEIGHT	628	IVE
2	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	RX-EL-HD-3349A-DT-EMB PUSH PBAR	628	VON
1	EA	ELEC PANIC HARDWARE	RX-EL-HD-3349A-NL-EMB PUSH PBAR	628	VON
1	EA	RIM HOUSING	C953	626	FAL
1	EA	SFIC CONST. CORE	C607CCA		FAL
1	EA	SFIC CORE	CB807	626	FAL
2	EA	SURFACE CLOSER	4050 SCUSH	689	LCN
2	EA	MOUNTING PLATE	4050-18PA	689	LCN
2	EA	SHOE SUPPORT	4050-30	689	LCN
2	EA	STOP SPACER	4050-61	689	LCN
2	EA	DOOR BOTTOM	50A-DOOR WIDTH (PULL SIDE MTG)	A	ZER
1	EA	THRESHOLD	65A-E-FRAME WIDTH	A	ZER
1	EA	POWER SUPPLY	PS914 900-2RS 900-BBK	LGR	VON
		WEATHER STRIP	PROVIDED BY THE ALUMINUM DOOR MFG		
		CARD READER	PROVIDED BY THE SECURITY CONTRACTOR		

HARDWARE SET # 02 - EXTERIOR - STOREFRONT ACCESS CONTROLLED

DOORS #
07

EACH TO HAVE:

1	EA	CONTINUOUS HINGE	112HD-DOOR HEIGHT	628	IVE
1	EA	PANIC HARDWARE	33A-NL-EMB PUSH PBAR	628	VON
1	EA	RIM HOUSING	C953	626	FAL
1	EA	SFIC CONST. CORE	C607CCA		FAL
1	EA	SFIC CORE	CB807	626	FAL
1	EA	ELECTRIC STRIKE	6300 FSE EB	630	VON
1	EA	SURFACE CLOSER	4050 SCUSH	689	LCN
1	EA	MOUNTING PLATE	4050-18PA	689	LCN
1	EA	SHOE SUPPORT	4050-30	689	LCN
1	EA	STOP SPACER	4050-61	689	LCN
1	EA	DOOR BOTTOM	50A-DOOR WIDTH (PULL SIDE MTG)	A	ZER
1	EA	THRESHOLD	65A-E-FRAME WIDTH	A	ZER
		WEATHER STRIP	PROVIDED BY THE ALUMINUM DOOR MFG		
		POWER SOURCE	PROVIDED BY THE SECURITY CONTRACTOR		
		CARD READER	PROVIDED BY THE SECURITY CONTRACTOR		
		REX SWITCH	PROVIDED BY THE SECURITY CONTRACTOR		

HARDWARE SET # 03 - EXTERIOR - ACCESS CONTROLLED

DOORS #
02 04 05

EACH TO HAVE:

2	EA	CONTINUOUS HINGE	112HD EPT-DOOR HEIGHT	628	IVE
2	EA	POWER TRANSFER	EPT10	689	VON
1	EA	REMOVABLE MULLION	KR4954-B-154-MT54	689	VON
1	EA	ELEC PANIC HARDWARE	RX-EL-HD-99-DT-EMB PUSH PBAR-SNB	628	VON
1	EA	ELEC PANIC HARDWARE	RX-EL-HD-99-NL-EMB PUSH PBAR-SNB	628	VON
1	EA	RIM HOUSING	C953	626	FAL
1	EA	MORTISE CYLINDER	C987	626	FAL
2	EA	SFIC CONST. CORE	C607CCA		FAL
2	EA	SFIC CORE	CB807	626	FAL
2	EA	SURFACE CLOSER	4050 SCUSH TBSRT	689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B4E CS TKTX	630	IVE
1	EA	HEADER SEALS	429A-1 PC FRAME WIDTH	A	ZER
1	EA	WEATHER STRIP	8303AA-2 PCS JAMB HEIGHT	AA	ZER
2	EA	DOOR BOTTOM	50A-DOOR WIDTH (PULL SIDE MTG)	A	ZER
1	EA	THRESHOLD	65A-E-FRAME WIDTH	A	ZER
1	EA	RAIN DRIP	142A-FRAME HEADER PLUS 4"	A	ZER
1	EA	POWER SUPPLY	PS914 900-2RS 900-BBK	LGR	VON
		CARD READER	PROVIDED BY THE SECURITY CONTRACTOR		

HARDWARE SET # 04 - EXTERIOR - ACCESS CONTROLLED

DOORS #
06

EACH TO HAVE:

1	EA	CONTINUOUS HINGE	112HD-DOOR HEIGHT	628	IVE
1	EA	STOREROOM LOCK	T581HD7 QUA 98835S	626	FAL
1	EA	SFIC CORE	CB807	626	FAL
1	EA	ELECTRIC STRIKE	6211 FSE EB	630	VON
1	EA	LOCK GUARD	LG14	630	IVE
1	EA	SURFACE CLOSER	4050 SHCUSH TBSRT	689	LCN
1	EA	ARMOR PLATE	8400 36" X 1 1/2" LDW B-CS TKTX	630	IVE
1	EA	HEADER SEALS	429A-1 PC FRAME WIDTH	A	ZER
1	EA	WEATHER STRIP	8303AA-2 PCS JAMB HEIGHT	AA	ZER
1	EA	DOOR BOTTOM	50A-DOOR WIDTH (PULL SIDE MTG)	A	ZER
1	EA	THRESHOLD	65A-E-FRAME WIDTH	A	ZER
1	EA	RAIN DRIP	142A-FRAME HEADER PLUS 4"	A	ZER
1	EA	DOOR VIEWER	2-1/8" DOOR SCOPE	BLK	DON
		POWER SOURCE	PROVIDED BY THE SECURITY CONTRACTOR		
		CARD READER	PROVIDED BY THE SECURITY CONTRACTOR		
		REX SWITCH	PROVIDED BY THE SECURITY CONTRACTOR		

HARDWARE SET # 05 - EXTERIOR - MECHANICAL/ELECTRICAL

DOORS #
03

EACH TO HAVE:

2	EA	CONTINUOUS HINGE	112HD-DOOR HEIGHT	628	IVE
1	EA	PANIC HARDWARE	9927-EO-EMB PUSH PBAR-SNB	628	VON
1	EA	PANIC HARDWARE	9927-NL-EMB PUSH PBAR-SNB	628	VON
1	EA	RIM HOUSING	C953	626	FAL
1	EA	SFIC CONST. CORE	C607CCA		FAL
1	EA	SFIC CORE	CB807	626	FAL
2	EA	SURFACE CLOSER	4050 SHCUSH TBSRT	689	LCN
1	EA	HEADER SEALS	429A-1 PC FRAME WIDTH	A	ZER
1	EA	WEATHER STRIP	8303AA-2 PCS JAMB HEIGHT	AA	ZER
2	EA	DOOR BOTTOM	50A-DOOR WIDTH (PULL SIDE MTG)	A	ZER
1	EA	THRESHOLD	65A-E-FRAME WIDTH	A	ZER
1	EA	RAIN DRIP	142A-FRAME HEADER PLUS 4"	A	ZER

HARDWARE SET # 06 - EXTERIOR - RISER ROOM & MECHANICAL

DOORS #
27 28

EACH TO HAVE:

3	EA	HW HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EA	STOREROOM LOCK	T581HD7 QUA 98835S	626	FAL
1	EA	SFIC CORE	CB807	626	FAL
1	EA	LOCK GUARD	LG14	630	IVE
1	EA	OH STOP & HOLDER	100F	630	GLY
1	EA	WEATHER STRIP	8303AA-HEAD & JAMBS	AA	ZER
1	EA	DOOR BOTTOM	50A-DOOR WIDTH (PULL SIDE MTG)	A	ZER
1	EA	THRESHOLD	65A-E-FRAME WIDTH	A	ZER
1	EA	RAIN DRIP	142A-FRAME HEADER PLUS 4"	A	ZER

HARDWARE SET # 07 - MEN & WOMEN RESTROOMS

DOORS #

13 14 19 20

EACH TO HAVE:

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	PASSAGE SET	T101S QUA	626	FAL
1	EA	INDICATOR DEADLOCK	B571 X (6) 61-510	626	SCH
1	EA	SURFACE CLOSER	1450 REG	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B4E CS TKTX	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	COAT HOOK	582M	626	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET # 08 - TECH CENTER

DOORS #

21

EACH TO HAVE:

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	CLASSROOM LOCK	T561HD7 QUA	626	FAL
1	EA	SFIC CORE	CB807	626	FAL
1	EA	SURFACE CLOSER	1450 REG	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B4E CS TKTX	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET # 09 - CAFETERIA

DOORS #

22

EACH TO HAVE:

6	EA	HW HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE

1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	CLASSRM DEADBOLT	D211HD7	626	FAL
1	EA	SFIC CORE	CB807	626	FAL
2	EA	PUSH PLATE	8200 8" X 16"	630	IVE
2	EA	PULL PLATE	8305 8" 3.5" X 15"	630	IVE
2	EA	SURFACE CLOSER	4050 HEDA TBSRT	689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B4E CS TKTX	630	IVE
2	EA	WALL STOP	WS406/407CCV	630	IVE
2	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET # 10 - EXTERIOR - MANUAL OVERHEAD DOOR

DOORS #

23 24 25 26

EACH TO HAVE:

1	EA	PADLOCK	KS43G3200 SHACKLE AS REQUIRED		SCH
1	EA	SFIC CONST. CORE	C607CCA		FAL
1	EA	SFIC CORE	CB807	626	FAL
		BALANCE HARDWARE	PROVIDED BY THE OH DOOR MFG		

HARDWARE SET # 11 - BOYS & GIRLS RESTROOMS

DOORS #

16 17

EACH TO HAVE:

1	EA	CONTINUOUS HINGE	112HD-DOOR HEIGHT	628	IVE
1	EA	PUSH PLATE	8200 8" X 16"	630	IVE
1	EA	PULL PLATE	8305 8" 3.5" X 15"	630	IVE
1	EA	SURFACE CLOSER	1450 REG	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B4E CS TKTX	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET # 12 - JANITOR & M.D.F.

DOORS #

15 18

EACH TO HAVE:

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	STOREROOM LOCK	T581HD7 QUA	626	FAL
1	EA	SFIC CORE	CB807	626	FAL
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET # 13 - ROLLING COUNTER DOOR

DOORS #
29

EACH TO HAVE:

1	EA	PADLOCK	KS43G3200 SHACKLE AS REQUIRED		SCH
1	EA	SFIC CONST. CORE	C607CCA		FAL
1	EA	SFIC CORE	CB807	626	FAL
		BALANCE HARDWARE	PROVIDED BY THE OH DOOR MFG		

HARDWARE SET # 14 - STORAGE

DOORS #
11

EACH TO HAVE:

6	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	T581HD7 QUA 98835S	626	FAL
1	EA	SFIC CORE	CB807	626	FAL
1	EA	COORDINATOR	3780	BLK	ABH
2	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	STRIKE ASTRAGAL	43STST-DOOR HEIGHT	STST	ZER
2	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET # 15 - MEETING ROOM/ENTRANCE

DOORS #
12

EACH TO HAVE:

3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	PASSAGE SET	T101S QUA	626	FAL
1	EA	DEADLOCK	D231HD7	626	FAL
1	EA	SFIC CORE	CB807	626	FAL
1	EA	SURFACE CLOSER	4050 HEDA TBSRT	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B4E CS TKTX	630	IVE
1	EA	FLOOR STOP	FS410	626	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE SET # 16 - LOBBY/GYMNASIUM

DOORS #
10

EACH TO HAVE:

2	EA	CONTINUOUS HINGE	112HD-DOOR HEIGHT	628	IVE

1	EA	PANIC HARDWARE	3349A-DT-EMB PUSH PBAR	628	VON
1	EA	PANIC HARDWARE	3349A-NL-EMB PUSH PBAR	628	VON
1	EA	RIM HOUSING	C953	626	FAL
1	EA	SFIC CONST. CORE	C607CCA		FAL
1	EA	SFIC CORE	CB807	626	FAL
2	EA	SURFACE CLOSER	4050 HEDA	689	LCN
2	EA	MOUNTING PLATE	4050-18PA	689	LCN
2	EA	FLOOR STOP	FS410	626	IVE
		WEATHER STRIP	PROVIDED BY THE ALUMINUM DOOR MFG		

END OF SECTION

SECTION 088000

GLAZING

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes glazing for the following products and applications, including those specified in other Sections where glazing requirements are specified by reference to this Section: Storefronts

1.02 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design glass, including comprehensive engineering analysis according to International Building Code by a qualified professional engineer, using the following design criteria:
   1. Design Wind Pressures:
      a. Positive pressure (wind acting toward exterior surface) +27 psf
      b. Negative pressure (wind acting away from exterior surface) -35 psf.
   2. Windborne Debris Resistance: Glazing shall be tested per ASTM E 1886 to resist impact from windborne debris and meet the performance specifications of ASTM E 1996.

1.03 SUBMITTALS

A. Product Data: For each glass product and glazing material indicated.
B. Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches (300 mm) square.
C. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.
D. Delegated-Design Submittal: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.04 QUALITY ASSURANCE

A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards. GANA Publications: GANA's "Laminated Glazing Reference Manual" and GANA's "Glazing Manual." IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."
B. Safety Glazing Labeling: Where safety glazing labeling is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction or the manufacturer. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
C. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of IGCC.

1.05 WARRANTY

A. Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer's standard form in which coated-glass manufacturer agrees to replace coated-glass units that deteriorate within specified warranty period. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to

manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.

1. Warranty Period: 10 years from date of Substantial Completion.

B. Manufacturer's Special Warranty on Laminated Glass: Manufacturer's standard form in which laminated-glass manufacturer agrees to replace laminated-glass units that deteriorate within specified warranty period. Deterioration of laminated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.

1. Warranty Period: Five years from date of Substantial Completion.

C. Manufacturer's Special Warranty on Insulating Glass: Manufacturer's standard form in which insulating-glass manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 -PRODUCTS

2.01 GLASS PRODUCTS, GENERAL

A. Thickness:
   1. Where glass thickness is indicated, it is a minimum.
   2. Provide glass lites in thicknesses as needed to comply with requirements indicated.

B. Strength:
   1. Where float glass is indicated, provide annealed float glass, Kind HS heat-treated float glass, or Kind FT heat-treated float glass.
   2. Where heat-strengthened glass is indicated, provide Kind HS heat-treated float glass or Kind FT heat-treated float glass.
   3. Where fully tempered glass is indicated, provide Kind FT heat-treated float glass.

C. Windborne-Debris-Impact Resistance:
   1. Provide exterior glazing that passes basic-protection testing requirements in ASTM E 1996 for code mandated Wind Zone when tested according to ASTM E 1886.
   2. Test specimens shall be no smaller in width and length than glazing indicated for use on the Project and shall be installed in same manner as glazing indicated for use on the Project.
   3. Large-Missile Test: For all glazing, regardless of height above grade.

D. Thermal and Optical Performance Properties:
   1. Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
      a. U-Factors: Center-of-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F (W/sq. m x K).
      b. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
      c. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

2.02 GLASS PRODUCTS

A. FLOAT GLASS: ASTM C 1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.
   1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      a. TGP INDUSTRIES.

b. Guardian Industries Corp.
c. Pilkington North America
d. PPG Industries, Inc

B. MONOLITHIC GLASS
1. Fully Tempered Float Glass
2. Thickness: 9/16”
3. Coating: second Surface
4. Provide safety Glazing label
5. ASTM C 1048; Type I; Quality-Q3; Class I (clear) unless otherwise indicated

C. LAMINATED GLASS
1. Glass Type - exterior door lites: Low-E coated, laminated glass,
a. Overall Unit Thickness: 7/16 inch
b. Lite: Clear laminated glass with two plies of float glass
c . Thickness of each glass ply" 1/4"
d. Interlayer thickness: 0.090 inch (2.29 mm)
e. Low-E coating: Solarban 60 (or equal) low-E coating #2 on first surface

D. INSULATING GLASS
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
a. PPG
b. AGC
2. Exterior windows and storefront entrances:
a. SOLAR CONTROL LOW-E CLEAR INSULATING GLASS
"Solarban" 70XL (2) "Solar Gray" + Clear by PPG
i. Outdoor Lite: "Solargray" Tempered Glass, Sputter Coated on 2nd surface
ii. Indoor Lite: Clear Tempered Glass
iii. Insulating Unit Construction: 1/4" Glass + 1/2" Airspace + 1/4" Glass

2.03 GLAZING ACCESSORIES

A. GLAZING GASKETS
1. Dense Compression Gaskets: Molded or extruded gaskets of profile and hardness required to maintain watertight seal, made from one of the following:
a. EPDM complying with ASTM C 864.
b. Silicone complying with ASTM C 1115.
c. Thermoplastic polyolefin rubber complying with ASTM C 1115.
2. Soft Compression Gaskets: Extruded or molded, closed-cell, integral-skinned EPDM, silicone, or thermoplastic polyolefin rubber gaskets complying with ASTM C 509, Type II, black; of profile and hardness required to maintain watertight seal.
a. Application: Use where soft compression gaskets will be compressed by inserting dense compression gaskets on opposite side of glazing or pressure applied by means of pressure-glazing stops on opposite side of glazing.

B. GLAZING SEALANTS
1. Compatibility: Provide glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
3. Use Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 100/50, Use NT.

C. GLAZING TAPES
1. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C 1281 and AAMA 800 for products indicated below:
   a. AAMA 804.3 tape, where indicated.
   b. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
   c. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:
      i. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
      ii. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

2.04 MISCELLANEOUS GLAZING MATERIALS

A. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
B. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.
C. Spacers: Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
D. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).
E. Perimeter Insulation for Fire-Resistive Glazing: Product that is approved by testing agency that listed and labeled fire-resistant glazing product with which it is used for application and fire-protection rating indicated.

PART 3 - EXECUTION

3.01 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
B. Adjust glazing channel dimensions as required by Project conditions during installation to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.
C. Protect glass edges from damage during handling and installation.
D. Remove damaged glass from Project site and legally dispose of off Project site.
E. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.
F. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
G. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
H. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
I. Provide spacers for glass lites where length plus width is larger than 50 inches (1270 mm).
J. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

3.02 TAPE GLAZING

A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.

B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
C. Cover vertical framing joints by applying tapes to heads and sills first and then to jambs. Cover horizontal framing joints by applying tapes to jambs and then to heads and sills.
D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
E. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

3.03 GASKET GLAZING (DRY)

A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.
C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
E. Install gaskets so they protrude past face of glazing stops.

3.04 SEALANT GLAZING (WET)

A. Install continuous spacers, or spacers combined with cylindrical sealant backing, between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel and blocking weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.
B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.
C. Tool exposed surfaces of sealants to provide a substantial wash away from glass.

3.05 CLEANING AND PROTECTION

A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels and clean surfaces.
B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.
C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains; remove as recommended in writing by glass manufacturer.
D. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.

END OF SECTION

SECTION 088300

MIRRORS

PART 1 - GENERAL

1.01 Description

A. Perform all work required to complete the mirror units indicated by the Contract Documents and furnish all supplementary items necessary for their proper installation.
B. The requirements of Division 0 - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual shall apply to all work required for this section.

1.02 Submittals

A. Samples
   1. Submit for approval samples of typical mirrors showing construction and finish specified.
B. Shop Drawings
   1. Submit manufacturer's literature and mark sufficiently to indicate compliance with these specifications. Show locations, methods of supporting, methods of anchoring and finishes.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

A. Material manufactured by any of the following manufacturers is acceptable, provided it complies with the Contract Documents.
   1. A & J United Machine & Metal Products Corp.
   2. American Specialties, Inc.
   3. Bobrick Washroom Equipment, Inc.
   4. Bradley Corp. Hallmack-NuTone/Div. Scovil
   5. G. M. Ketcham Company, Inc.
   6. F. H. Lawson Co.

2.02 Materials

A. *At each lavatory or sink furnish and install an 18” x 24” mirror unless other wise noted.*
B. *Mirror Glass; 1/4” thick, Type I, Glass 1, Quality Q2, conforming to FS DD-G-451, with silvering, copper coating, and protective organic coating complying with FS DD-M-411.*
C. *Framing: Manufacturer's standard alloy aluminum. Smooth corners. Bobrick #B-165 Series.*

2.03 Fabrications

A. General
   1. Edge Protection: Fabricate frames for glass mirrors to accommodate wood, felt, plastic, or other glass edge protection material.
   2. Backing. Provide mirror backing and support system that will permit rigid, Damperproof glass installation and prevent accumulation of moisture, as follows: a) Galvanized steel backing sheet, not less than 22 gage and full mirror size, with non-absorptive filler material. Corrugated cardboard is not an acceptable filler material.
   3. Hangers: Provide system of mounting mirror units that will permit rigid, tamperproof and theft-proof installation, as follows:
      a. One-piece galvanized steel wall hanger device with spring action locking mechanism to hold mirror unit i n position with no exposed screws or bolts,

         OR AT CONTRACTOR'S OPTION:

      b. Heavy-duty wall brackets of galvanized steel, equipped with concealed locking devices requiring special tool to remove.

PART 3 - EXECUTION

3.01 Installation

A. Secure mirrors to walls in concealed, tamperproof manner with special hangers, toggle bolts, or screws. Set units plumb, level, and square at locations indicated, in accordance with manufacturer's instructions for type of substrate involved.

B. ***Installation height to be to reflective surface.***

3.02 Adjust and Clean

A. Clean exposed surfaces of mirror units in compliance with manufacturer's recommendations.

END OF SECTION

SECTION 092216

NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents:
   1. Drawings and general provisions of the Subcontract apply to this Section.
   2. Review these documents for coordination with additional requirements and information that apply to work under this Section.

B. Section Includes:
   1. Metal framing, [including metal suspension system for gypsum board ceilings.

C. Related Sections:
   1. Division 01 Section "General Requirements."
   2. Division 01 Section "Special Procedures."
   3. Division 05 Section "Cold-Formed Metal Framing".
   4. Division 07 Section "Blanket Insulation."
   5. Division 09 Section "Gypsum Board".

1.2 REFERENCES

A. General:
   1. The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
   2. Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
   3. Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.

B. AISI "Specification for the Design of Cold-Formed Steel Structural Members", latest edition and amendments.

C. ASTM International:
   1. ASTM A641 Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
   2. ASTM A1008 Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
   3. ASTM A1011 Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
   4. ASTM C645 Standard Specification for Nonstructural Steel Framing Members.
   5. ASTM C754 Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Panel Products.

1.3 SUBMITTALS

A. Submit under provisions of Division 01 Section "General Requirements."

B. Product Data: Manufacturer’s product data and installation instructions for each item of metal framing, metal suspension system, and accessories.

C. Approved ICBO report for fasteners proposed to attach metal framing systems to building superstructure.

1.4 DELIVERY AND STORAGE

A. Deliver materials in original unopened packages, containers or bundles bearing manufacturer's name, brand, and type of material.

B. Store materials in accordance with manufacturer's recommendations and in protected dry storage areas. Protect metal items from rusting.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Metal Studs: ASTM 645, C-type, 20 gage (.0329 inch (0.8 mm) minimum thickness) unless otherwise indicated, 1-5/8 inch (9.5 mm) flanges, screw type, galvanized.
   1. Runners: Same as studs.
   2. Top Runners: Double 2 inches (50 mm) min flange top runners at head of structure high partitions.
   3. Where stud size is not indicated, conform to manufacturer's recommendations and code requirements for minimum size based on partition heights.

B. Metal Furring Channels: 22 gage (.0269 inch (0.7 mm) minimum thickness) unless otherwise indicated, galvanized, roll formed, hat shaped channels, screw type.

C. Stiffener Channels: 1-1/2 (38 mm) and 3/4 (18 mm) galvanized cold rolled steel channels.
D. Resilient Channels: 25 gage (.022 inch (.56 mm)) galvanized.
E. Suspension Channels: 1-1/2 (38 mm) cold rolled steel channels, 20 gage (.0329 inch (0.8 mm) minimum thickness) unless otherwise indicated, galvanized for exterior use, shop primed for interior use, interlocking to form supporting network.
F. Fasteners: As recommended by metal framing manufacturers. Hangers: ASTM 641, Class 1, not less than sizes in Table 5 of ASTM C754 and CBC Chapter 25; hanger rods, flat hangers, and angle-type hangers as required.

PART 3 - EXECUTION

3.1 EXAMINATION
A. Inspect surfaces, backing, and structural systems to receive metal framing, furring and ceiling suspension systems, and report any discrepancies in writing to Project Manager for resolution. Starting work implies acceptance of existing conditions.

3.2 PREPARATION
A. Obtain dimensions and locations from other trades, and provide openings and enclosures for accessories, specialties, equipment and ductwork.

3.3 INSTALLATION
A. General:
1. Attach securely to building structure. Include all welding required for attachment of clips and attachment devices to structural steel frame.
2. Install members true to lines and levels to provide flatness with maximum variation of 1/8 inch (3 mm) in 10 feet (3 m) in any direction for walls, and 1/8 inch (3 mm) in 12 feet (3.6 m) for ceilings.
3. Install backing plates at studs to support wall mounted items, including fixtures, lavatories, counters, shelves, casework, accessories, and hardware. Weld to studs 16 gauge and heavier, screw to studs 18 gauge and lighter.
4. Coordinate installation of bucks, anchors, blocking, electrical and mechanical work which is to be placed in or behind partition or ceiling framing. Allow items to be installed after framing is complete.
5. Safing Insulation: Comply with Division 07 Section "Penetration Firestopping".

B. Metal Framing:
1. Door Opening Framing: Install double studs at doorframe jambs. Install runners on each side at frame head height between jamb studs and adjacent studs.
2. Install solid blocking at edges of gypsum board panels.
3. Furring: Install wall furring channels vertically, unless otherwise indicated. [Unless otherwise indicated, terminate vertical furring 3 inches (75 mm) above suspended ceilings.]

C. Ceiling Framing:
1. Coordinate location of hangers with other work. Provide trapeze supports and steel bracing as required to support ceiling.
2. Install ceiling framing independent of walls, columns, and above-ceiling work.
3. Space main carrying at maximum 48 inches (1219 mm) on center, maximum 6 inches (150 mm) from boundary walls or interruptions in ceiling continuity. Lap splices minimum 12 inches (300 mm) and secure together 2 inches (50 mm) from each end of splice. Level channels to provide a tolerance of 1/8 inch (3 mm) in 12 feet (3.6 m) in finished ceiling.
4. Place metal furring channels perpendicular to carrying channels. Space furring channels at maximum 24 inches (600 mm) on center. Lap splices minimum 8 inches 200 mm) and secure together 2 inches (50 mm) from each end of splice.
5. Reinforce openings that interrupt channels, with lateral channel bracing extending minimum 24 (600 mm) past each end of openings.
6. Laterally brace entire suspension system.

END OF SECTION

SECTION 092900

GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents:
   1. Drawings and general provisions of the Subcontract apply to this Section.
   2. Review these documents for coordination with additional requirements and information that apply to work under this Section.

B. Section Includes:
   1. Gypsum board, including joint treatment.
   2. Acoustical insulation.

C. Related Sections:
   1. Division 01 Section "General Requirements."
   2. Division 01 Section "Special Procedures."
   3. Division 05 Section "Cold-Formed Metal Framing".
   4. Division 06 Section "Rough Carpentry".
   5. Division 08 Section "Access Doors and Frames."
   6. Division 09 Section "Non-Structural Metal Framing".
   7. Division 09 Section "Painting".

1.2 REFERENCES

A. General:
   1. The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
   2. Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
   3. Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.

B. ASTM International:
   1. ASTM C36 Standard Specification for Gypsum Wallboard.
   2. ASTM C79 Standard Specification for Treated Core and Nontreated Core Gypsum Sheathing Board.
   3. ASTM C442 Standard Specification for Gypsum Backing Board, Gypsum Coreboard, and Gypsum Shaftliner Board.
   4. ASTM C475 Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
   5. ASTM C630 Standard Specification for Water-Resistant Gypsum Backing Board.
   6. ASTM C665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
   7. ASTM C840 Standard Specification for Application and Finishing of Gypsum Board.
   8. ASTM C919 Standard Practice for Use of Sealants in Acoustical Applications.
   9. ASTM C1002 Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.

C. GA – Gypsum Association:
   1. GA-214 - Recommended Levels of Gypsum Board Finish, published by the Gypsum Association (GA).
   2. GA-600 - Fire Resistance Design Manual.

D. Underwriters Laboratories, Inc (UL) Fire Resistance Directory.

1.3 SUBMITTALS

A. Submit under provisions of Division 01 Section "General Requirements."
B. Product Data: Manufacturer’s product data and installation instructions for each component.

1.4 QUALITY ASSURANCE

A. Installer's Qualifications: Company with minimum 5 years documented experience specializing in performing the work of this section.

B. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.

1.5 DELIVERY AND STORAGE

A. Deliver materials in original unopened packages, containers or bundles bearing manufacturer's name, and product name and number.
B. Store materials in compliance with manufacturer's recommendations, and in an enclosed ventilated shelter, providing protection from the elements. Store flat and off floor.
C. Remove damaged or deteriorated materials and replace with new at no additional cost to LBNL.

1.6 PROJECT CONDITIONS

A. Do not commence installation of gypsum products until the building has been closed in, or exterior openings are otherwise protected.
B. Maintain areas to receive gypsum board at temperature recommended by manufacturer.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. United States Gypsum Company,
B. National Gypsum Company, or
C. G-P Gypsum Corporation.
D. All materials included in this Section shall be the products of one manufacturer, unless noted otherwise.

2.2 MATERIALS

A. Gypsum Board Materials: Maximum permissible lengths, Type X, fire rated, ends square cut, tapered edges on boards to be finished, unless otherwise indicated.
   1. Gypsum Board: ASTM C36, 5/8" thick.
   2. Water Resistant Gypsum Board: ASTM C 630.

B. Accessories:
   1. Fasteners: Metal screws meeting ASTM C1002, minimum S-12 screws for 20 gage or heavier metal.
   2. Trim: Coated steel, designed to be concealed in finished construction by tape and joint compound.
      a. Edge Trim: GA-216 "L", "LK" of "LC".
      b. Corner Beads: Manufacturer's standard metal bead.
      c. Control Joints: [Manufacturer's standard metal with removable strip.] [Back to back edge trim, backed with 4 mil thick polyethylene air seal.]
      d. Aluminum Moldings: Fry Corp., or equal, extruded aluminum, profiles indicated on Drawings, natural finish, longest lengths possible to minimize joints.
      e. Joint Materials: Reinforcing tape, joint compound, adhesive, water: ASTM C475.
      f. Fiberglass reinforcing tape where joining to existing plaster.
      g. Acoustic Sealant: ASTM C919, type for use with gypsum board, non-skinning, non-hardening.
      h. Acoustic Insulation: ASTM C665, Type I, preformed mineral fiber, friction fit, unfaced, thickness required to meet indicated STC ratings, or thickness indicated.
      i. Compressible Tape: Closed cell neoprene tape, adhesive back, width and thickness as required for gap.
      j. Electrical Box Sealer (Non-Fire-Rated Partitions): Lowry's "Electrical Box Pads" (Van Nuys, CA) no known equal, 6" x 8" x 1/8" thick, resilient sealer pads. Use to seal back and sides of all junction boxes recessed in acoustically rated partitions.
      k. Backing Rod: Closed-cell polyethylene foam.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Coordinate with other trades for provisions for insulation, refractory fiber, blocking, metal backing plates, special anchors, access doors and panels, and ensure that such items are properly located and installed prior to installing wall finish.

B. Inspect surfaces, backing, framing and furring systems to receive gypsum board, and report any discrepancies. Starting work implies acceptance of existing conditions.

3.2 PREPARATION

A. Protect adjacent areas and air distribution systems from gypsum dust.

3.3 INSTALLATION

A. Gypsum Board: Install in accordance with ASTM C840 and manufacturer's recommendations.

1. Fasten gypsum board with screws.
2. Install gypsum board plumb, level, and plane.
3. Erect gypsum board with edges and ends occurring on framing members, except edges and ends that are perpendicular to framing members.
4. Locate joints on opposite sides on different studs. Joints are not permitted at corners of openings unless detailed otherwise.
5. Double Layer Applications: Gypsum backer board is permitted for first layer. Secure second layer to first with adhesive and sufficient mechanical support to hold in place. Apply adhesive in accordance with manufacturer's recommendations.
6. Ensure joints of second layer do not occur over joints of first layer.
7. Water Resistant Gypsum Board: Treat cut edges and holes with sealant.
8. Tolerances: Maximum variation of finished surface from true flatness 1/8 inch in 10 feet (3 mm in 3m).
9. Gypsum Board To Receive Ceramic Tile Finish: As above, and 1/16 inch in one foot (1.5 mm in 300 mm). Install gypsum board plumb with square corners so that tile may be installed without variations in joints.
10. Finish: Comply with GA-214.
    a. Level 1: At areas concealed from view. At fire rated assemblies, comply with requirements of approved fire rating designs.
    b. Level 2: At tile substrates and areas not indicated to be painted.
    c. Level 3: Where heavily textured wall coverings are indicated.
    d. Level 4: Smooth finish. Where flat paints or light wall coverings are indicated.
    e. Level 5: Smooth finish. Where gloss, semigloss, enamel or nontextured flat paints are specified, at severe lighting conditions, and at cleanrooms.

B. Accessories:
1. Control Joints: Place consistent with lines of building spaces and as directed by Project Manager. Provide at the following conditions:
    a. Where system abuts structural elements.
    b. At dissimilar materials.
    c. Partitions exceeding 30 feet (9.15 m) lengths.
    d. Ceilings exceeding 50 feet (15.24 m) or 2,500 square feet (232.25 m²).
    e. Wings of "L", "T" or "U" shaped ceilings.
2. Corner Beads: Place at external corners; use longest practical lengths.
3. Edge Trim: Place where gypsum board abuts dissimilar materials.
4. Tape, fill and sand exposed joints, edges, corners and openings to produce surface ready to receive finishes. Feather coats onto adjoining surfaces.

C. Acoustical or Air Sealed Systems:
1. Install acoustical insulation tight within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
2. Install acoustical sealant in accordance with manufacturer's instructions.
3. Install acoustical insulation blanket on suspended ceilings at acoustical systems that are not full height to structure. Lay with faced side up. Provide continuous layer of insulation 4 feet (1200 mm) wide each side of system.
4. Fill all gaps with compressible neoprene tape where gypsum board systems abut window mullions or other surfaces inaccessible for sealant work.
5. Include and edit the following paragraph as appropriate. Delete the following paragraph as appropriate.
6. Seal the backs of electrical boxes in sound insulated construction airtight using specified resilient sealer pads.
7. All seals shall be concealed

D. Remove and replace defective work.

E. Protect gypsum board work from moisture and contaminants.

END OF SECTION

SECTION 093013

CERAMIC TILE - GENERAL

PART 1 - GENERAL

1.01 Scope

A. Perform all work required to complete the Ceramic Tile indicated by the Contract Documents and furnish all supplementary items necessary for its proper installation.
B. The requirements of Division O - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual apply to all work required for this Section.
C. The various types of ceramic tiles are specified in their respective section
D. The various types of installation materials and methods are specified in their respective sections.

1.02 Submittals

A. Samples
   1. Submit samples for each color, pattern and type of wall tile to be used.
   2. Submit samples for each type, color and pattern of floor tile used.
B. Certification
   1. Identification: The Certification mark of the Tile Council of America shall appear on each label or carton of tile.
   2. Grade and Certificate: All tile shall be Standard Grade and containers grade-sealed in accordance with minimum-grade specifications established in TCA 137.1 In addition to grade seal, furnish Architect with master grade certificate stating grade, kind of tile, identification marks for tile packages, name and location of job signed by the manufacturer and the tile contractor.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

A. Material manufactured by any of the following manufacturers is acceptable, provided it complies w/ the Contract Documents.
   1. Ceramic Tile:
      a. United States Ceramic Tile Company
      b. Dallas Ceramic Company
      c. Lone Star Ceramics Company
      d. American Olean Tile Company
      e. Monarch Tile Company
      f. Winburn Tile Company
   2. Mortar and Grout:
      a. The Upco Company
      b. L & M Products, Inc.
      c. Laticrete International, Inc.
   3. Grout Colors: *Unless noted otherwise or changed during color selection*
      a. Interior walls — white
      b. Floor: Dark Gray

2.02 Materials

<As specified in their respective sections>

PART 3 - EXECUTION

3.01 Preparation

A. Examine surfaces to receive tile and do not start work until defects that will adversely affect tile work have been corrected.
B. Inspect all surfaces to see that they are dry, clean, free of oily or waxy film, firm, level and plumb, Report any unsatisfactory conditions to the Architect. Starting installation shall be deemed as acceptance of surfaces.

C. Do not start until work of other trades, which goes through or in the space behind tile has been completed. Do not proceed w/ installation until adjoining work is satisfactorily protected. Close off spaces in which tile is being set to traffic and other work during installation and for at least 48 hours after completion of tile work.
D. Do not apply mortar and adhesives to surfaces covered by frost, Maintain minimum temperature for installation of tile above 50 deg. F. Prevent rapid evaporation of moisture from mortar bed. Do not set tile on dry bed.

3.02 Workmanship

A. All tile and workmanship shall be in accordance with the TCA and in a manner conforming w/ the best current practice of the industry.
B. Center fields and patterns on applied areas so that no tile is less than half size. For heights stated in feet and inches, maintain full courses to nearest attainable height without cutting tile.
C. Except where otherwise shown or specified, make joints in wall tile vertical and horizontal and joints in floor tile perpendicular and parallel to walls. Control joint widths of glazed tile by lugs on the sides of tile. Control joint widths between sheets of ceramic mosaic tile by supporting boards with metal spacing strips.
D. Grind and fit tile carefully at intersections, against trim finish and at built-in fixtures and accessories. Fit tile closely around outlets, pipes, fixtures and fittings so that plates, escutcheons and collars will overlap cuts. Cut and drill tile and trim shapes accurately without damage. Rub all exposed cut edges smooth with abrasive stone.
E. Coat trim with 1/32 to 1/16" pure coat paste. Set in same mortar mix as is recommended for setting flat tile on walls. Do not use pure coat as mortar to set trim and angles.

3.03 Installation

A. As specified in their respective sections according to installation method indicated. Use thin-set method of installation with appropriate mortar and materials as recommended by manufacturer.

3.04 Cleaning

A. Sponge and wash tile thoroughly with clear water after the grout has stiffened. Then clean by rubbing with damp cloths or sponges, and polish with clean dry cloth.

END OF SECTION

SECTION 093015

GLAZED CERAMIC WALL TILE

PART 1 - GENERAL

1.01 Scope

A. Perform all work required completing, as indicated by the Contract Documents, and furnishing as supplementary items necessary for the proper installation of all Glazed Ceramic Wall Tile.
B. The requirements of Division 0 - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual apply to all work required for this Section.
C. The requirements of Section 09310 - Ceramic Tile of this Project Manual shall apply to all Work for this Section.
D. Mortars, adhesives and grouts required for the installation of this tile are specified in their respective sections.

1.02 Submittals

A. As specified in Section 093013 - Ceramic Tile - General

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

A. As specified in Section 093013— Ceramic Tile - General

2.02 Materials

A. Glazed Ceramic Wall Tile: TCA 137.1, machine made, colors as selected, cushion edges, non-vitreous body colored, matte finish, size 4 1/4" x4 1/4" Dal-Tile, or approved equal, color groups: 1, 2, 4 and 5.
B. Glazed Ceramic Wall Tile Trim Shapes: As required of same type, size, thickness, material and color as wall tile, TCA 137.7. All outside corners: Flat bullnose, All Bases: Coved.

PART 3 - EXECUTION

3.01 Installation

A. Where metal doorframes abut ceramic tile outset frames 3/8" to allow tile to end against the frame return thereby eliminating bullnose tile at this location. Unless otherwise indicated on the Drawings, at top of wainscot no bullnose. Strike grout 45° back to wall.
B. General installation requirements are specified in SECTION-09310/CERAMIC TILE. Use thin-set method of installation with appropriate mortar and materials as recommended by manufacturer.
C. Particular installation requirements for various setting and grouting methods are specified in their respective sections.

END OF SECTION

SECTION 093016

CERAMIC MOSAIC TILE

PART 1 - GENERAL

1.01 Scope

A. Perform all work required to complete, as indicated by the Contract Documents, and furnish all supplementary items necessary for the proper installation of all Ceramic Mosaic Tile.
B. The requirements of Division 0 - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual apply to all work required for this Section.
C. The requirements of Section 09310 - Ceramic Tile of this Project Manual shall apply to all work for this Section.
D. Mortars, adhesives and grouts required for the installation of this tile are specified in their respective sections.

1.02 Submittals

A. As specified in Section 093013 - Ceramic Tile - General

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

A. As specified in Section 093013 - Ceramic Tile - General

2.02 Materials

A. Ceramic Mosaic Floor Tile: TCA 137.1, domestic, machine made, unglazed, colors from Price Group 1, 2, 3, 4 and 5 vitreous body, natural clay type, 1/4" thick, cushion edges, size 2"x2"
B. Ceramic Mosaic Tile Trim Shapes: None

PART - EXECUTION

3.01 Installation

A. Thinset
B. Particular installation requirements for various setting and grouting methods are specified in their respective sections.
C. Expansion Joints; 1/4" wide (nominal)
    1. Directly above all floor slab construction joints.

END OF SECTION

SECTION 095113

ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents:
   1. Drawings and general provisions of the Subcontract apply to this Section.
   2. Review these documents for coordination with additional requirements and information that apply to work under this Section.
B. Section Includes:
   1. Acoustical surfaces including acoustic lay-in panels, grid systems, and required installation accessories.
C. Related Sections:
   1. Division 01 Section "General Requirements."
   2. Division 01 Section "Special Procedures."
   3. Division 09 Section "Painting" for field painting of lay-in panels.

1.2 REFERENCES

A. General:
   1. The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
   2. Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
   3. Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.
B. ASTM International:
   1. ASTM C635 - Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
   2. ASTM C636 - Installation of Metal Ceiling Suspension Systems - Acoustical Tile and Lay-in Panels.
C. Ceilings & Interior Systems Construction Association:
   1. Ceiling Systems Handbook.
D. UL - Underwriter’s Laboratories System Ratings.

1.3 SUBMITTALS

A. Submit under provisions of Division 01 Section "General Requirements."
B. Product Data:
   1. Manufacturer’s specifications, installation instructions and product data on metal grid system components, acoustical units, and all other products to be used.
   2. Approved ICBO report for fasteners proposed to be used to attach acoustical ceilings to building superstructure.
C. Shop Drawings: Show grid layout and dimensioning, panel layouts, lighting fixtures, air diffusers, grilles, and all other items exposed in acoustical ceilings, locations of seismic braces and hangers, and suspension, seismic and bracing details. Show details of junctions with other work or ceiling finishes, and special conditions.
D. Samples:
   1. Acoustic panels of each type – 6 by 6 inches (150 by 150 mm) minimum.
   2. Grid system components, including suspension system main runner, cross runner, edge trim, and all special shapes, in 12 inches (300 mm) lengths.

1.4 QUALITY ASSURANCE

A. Installer's Qualifications: 5 years minimum experience with and specializing in acoustical ceilings installations.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to project site in original, undamaged, unopened containers bearing manufacturer's name, style, color and product number of each type of material.
B. Comply with manufacturer’s recommendations for storage of materials to be used in the work.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Unless otherwise required by the manufacturers of the materials, temperatures are to be maintained at 60 degrees F. or higher, and humidity at 20 to 40 percent, prior to, during and after installation.

1.7 SEQUENCING AND SCHEDULING

A. Do not install acoustical ceilings until building is enclosed, sufficient heat is provided, dust-generating activities have terminated, and overhead work is completed, tested and approved. Schedule installation of acoustic units after interior wet work is dry.

PART 2 - PRODUCTS

2.1 ACOUSTICAL PANEL (AP) MATERIALS

A. AP 1: USG "Millennia", 3/4 inches (19 mm) thick, [24 by 24 inches (600 mm x 600 mm)] [or] [24 by 48 inches (600 mm x 1200 mm)] [as shown on Drawings], square edge, white, mineral fiber, Class A, CAC range 35-39, NRC Range 0.65-0.75; [ ].

2.2 GRID SUSPENSION SYSTEM (GS)

A. Manufacturers:
   1. Chicago Metallic Corp.,
   2. Donn, Eastern, or
   3. National Rolling Mills.
B. System Description: Systems shall be of steel construction as per CBC Standard 25-2 and shall consist of main and cross runners, perimeter trim, connectors, hangers and all accessories necessary for the complete installation.
   1. All systems shall permit the installation of recessed lighting fixtures upon the flanges of the systems and any form of splice or other obstruction that would inhibit or render such installation of fixtures difficult will not be permitted.
   2. Each intersection, splice and perimeter joint shall meet all seismic requirements of CBC Standard 25-2.
C. Finish: Factory finished white baked enamel over bonderized, electro-zinc-coated steel.
D. Main and Cross Runners:
   1. 9/16 inch (14 mm) flange narrow suspension system, intermediate duty steel, grid module to suit lay-in panel size. Include 9/16 inch (14 mm) wide perimeter trim members.
E. Connectors and Clips: Manufacturer's standard.
F. Hanger and Bracing Wires: Fed. Spec. QQ-W-461, Class 1, galvanized and annealed, 12 gage minimum.
G. Fasteners: Fasteners used for attachment of acoustical ceilings to building superstructure shall have an approved ICBO report.
H. Edge Sealer: Latex adhesive designed for the purpose of sealing field-cut edges of acoustic panels, as manufactured by Kelly-Moore, Inc., or equal.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Surfaces shall be dry and wet work completed prior to commencing installation. Inspect surfaces to receive acoustical work and report any defects. Starting work implies acceptance of surfaces and existing conditions.

3.2 INSTALLATION

A. Coordinate installation with other trades whose work adjoins or combines with acoustical ceilings. Unless otherwise shown, equipment, fixtures, etc., applied on or within acoustical panels are to be located symmetrically with respect to both axes. Provide grid members required to accommodate lay-in air diffusers and similar items of mechanical equipment.
B. Except as otherwise specified to meet structural requirements, make installation of grid systems and acoustical materials in strict accordance with approved manufacturer's specifications or recommendations and Drawing details. Where details and/or these Specifications are in apparent conflict with manufacturer's recommendations, the more stringent requirement shall apply.
C. Grid Suspension Systems:

a. Attachment to Building Superstructure: Install fasteners used to attach grid suspension system to building superstructure in accordance with the requirements of their approved ICBO report.
   1) Install suspension systems in flat, level plane unless otherwise shown, joints in exposed members tight and aligned without offsets. Direction of main runners, where not specifically indicated, shall be determined by fixture layout.
   2) Unless closer spacings are required by manufacturer of system, space hanger wires along main runners at 4 feet (1.2 m) maximum. Provide special hangers as required where items above ceiling obstruct normal hanger wires.
   3) Provide hold-down clips for lay-in panels where required to prevent lifting and flutter caused by air pressures.
   4) Install perimeter trim at wall and abutting vertical surfaces. Flange of trim shall be at the same level as flanges of main and cross runners.
   5) Level suspension systems to a tolerance of 1/8 inches (3 mm) in 12 feet (3.6 m).

D. Unless otherwise shown on reflected ceiling plans, align grid members and tile joints parallel to perimeter walls with pattern centered in room areas both directions.

3.3 PROTECTION

A. Protect the finished installation from damage during balance of construction period. Remove any soiled or damaged items and replace with new before acceptance of Project by LBNL.

END OF SECTION

SECTION 096519

RESILIENT TILE FLOORING

PART 1 - GENERAL

1.01 Description

A. Work included: Provide ail resilient flooring, complete in place, as indicated on the drawings, specified herein, or otherwise needed for a complete and proper installation of the work of this Section. Where indicated match existing type and color.

1.02 Quality Assurance

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.03 Submittals

A. General: Comply with pertinent provisions of Section 1
B. Manufacturers' data:
   1. Complete materials list of all items proposed to be furnished and installed under this Section.
   2. Manufacturers' specifications and other data required to demonstrate compliance with the specified requirements.
   3. Samples of each item, color, and pattern available in the specified products from the proposed manufacturer.
   4. Manufacturers' recommended methods of installation, {The manufacturers' recommended methods of installation, will become the basis for inspecting and accepting or rejecting actual installation methods used on the work.}

1.04 Product Handling

A. Delivery and storage: Deliver materials to the job site and store in their original unopened containers with all labels intact and legible at time of use. Store in strict accordance with the manufacturers' recommendations.
B. Protection: Use all means necessary to protect materials of this Section before, during, and after installation and to protect installed work and materials of all other trades.
C. Replacement: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.
D. Additional tile. Furnish to the Owner one carton of each pattern or color of replacement vinyl composition tile.

PART 2 - PRODUCTS

2.01 Materials - General

A. COLORS AND PATTERNS: shall be as selected by the Architect from colors and patterns available from the approved manufacturer in the specified types.
B. APPROVED MANUFACTURERS:
   1. Armstrong
   2. Azrock
   3. Manington
   4. Tarkett
C. ADHESIVES: shall be a waterproof and stabilized type as recommended by the manufacturer of the approved resilient material. Asphalt emulsions & other non-waterproof types will not be acceptable. Adhesives shall not contain asbestos.
D. CONCRETE SLAB PRIMER: shall be a non-staining type as recommended by the manufacturer of the resilient material to be applied over it at all transition from V.C.T. to another flooring.
E. EDGING STRIPS: install edge strips at all dissimilar floor transitions shall be 3 mm (1/8") thick, homogeneous rubber composition, tapered or bullnose type, as approved by the Architect.

F. VINYL COMPOSITION TELE: shall be 30 cm x 30 cm (12"x 12") square 3.175 mm (1/8") thick "Thru-Chip", (or an equal approved in advance by the Architect, in colors selected by the Architect from standard colors of the approved manufacturer.)

2.02 Other Materials

A. All other materials, not specifically described but required for a complete and proper installation of the work of this Section, shall be as recommended by the manufacturer of the resilient materials used, and as approved by the Architect.

PART 3 - EXECUTION

3.01 Inspection

A. General: Examine the areas and conditions under which resilient flooring is to be placed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

B. Surface shall be smooth, level, at the required finish elevation, without more than 3 mm (1/8") in 3 m (10'-0") variation from level or slopes shown.

3.02 Preparation

A. Subfloors: Prior to start of laying tile units, broom clean or vacuum all surfaces to be covered and inspect the subfloors. Start of laying tile will indicate acceptance of subfloor conditions.

B. Concrete primer: Apply concrete slab primer if recommended by tile manufacturer, prior to application of the adhesive. Apply in compliance with manufacturer's directions.

3.03 Installation

A. General:

1. Install tile only after all finishing operations, including painting, have been completed and permanent heating System is operating. Moisture content of concrete slabs, building air temperature and relative humidity must be within limits recommended by tile manufacturer.
2. Place tile units with adhesive cement in strict compliance with the manufacturer's recommendations.
3. BUTT THE UNITS TIGHTLY TO VERTICAL SURFACES, thresholds, nosings and edgings. Scribe as necessary around obstructions and to produce neat joints, laid tight, even and in straight, parallel lines.
4 Extend tile units into toe spaces, door reveals, and in closets and similar openings.
5. Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on the finish tile as marked in the subfloor. Use chalk or other non-permanent marking device.
6. Lay tile from center marks established with principal walls, discounting minor offsets, so that tile at opposite edges of the room are of equal width. Adjust as necessary to avoid use of cut widths less than 7.5 cm (3”) at room perimeters. Lay tile square to room axles.

B. Matching:

1. Match tiles for color and pattern by using tile from cartons in the same sequence as manufactured and packaged. Cut tile neatly to and around all fixtures. Broken, cracked, chipped or deformed tile are not acceptable.
2. Tightly cement tile to sub-base without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks through tile, or other surface imperfections 3. Unless otherwise noted, lay tile in checkerboard pattern with grain in tile running in alternate direction.

C. Edge-strips: Place the resilient edge-strips tightly butted to tile, and secure with adhesive. Provide edge-strips at all unprotected edges of tile and at floor material transitions, unless otherwise shown.

3.04 Cleaning And Protection

A. Move excess adhesive or other surface blemishes from tile, using neutral type cleaners recommended by the tile manufacturer. Protect installed flooring from damage until acceptance by the Owner.

3.05 Finishing

A. After completion of the work and just prior to final inspection, thoroughly clean tile floors and accessories. Apply wax & buff, with the type of wax, number of coats, and buffing procedures recommended by the tile manufacturer.

END OF SECTION

SECTION 096521

RESILIENT BASE

PART 1 - GENERAL

1.01 Scope

A. Perform all work required to complete the Resilient Base and Resilient Stair Treads indicated by the Contract Documents and furnish all supplementary items necessary for the proper installation.
B. The requirements of Division 0 - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual shall apply to as work required for this Section.

1.02 Submissions

A. Samples: Submit 6" length of material of each color selected.

1.03 Delivery and Storage

A. Delivery material to the job site in manufacturer's original unopened containers with manufacturer's label on all containers.
B. Store materials in original containers at not less than 70 Deg. F. for at least 24 hours before installation.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

A. Material manufactured by any of the following manufacturers is acceptable, provided it complies w/ the Contract Documents.
1. RESILIENT BASE:
Armstrong
Azrock
Burke Flooring Products Company
Flexco Div. of Textile Rubber Co., Inc.
GAF
Johnson Rubber Co.
Kentile Floors, Inc.
Mercer Plastics Co.
R.C. Musson Rubber Co.
Roppe Rubber Corporation
Vinyl Plastics, Inc. (VPs)

2.02 Materials

A. RESILIENT BASE: Rubber, 4" high continuous 120 roll, pre-molded inside and outside corners, top set cove base at resilient flooring, top set straight base at carpet floor, colors:{s} as selected.
B. ADHESIVES: As recommended by the base manufacturer. Use waterproof adhesive.
C. Edging strips install edge strips at all dissimilar floor transitions shall be 3 mm (1/8”) thick, homogeneous rubber compositions, tapered or bullnose type, as approved by Architect.

PART 3 - EXECUTION

3.01 Preparation

A. Examine surfaces to receive materials before work is started. Correct defects that could interfere with laying resilient materials in proper manner. Surfaces shall meet minimum requirements of the manufacturer of the floor materials.
B. Substrate Shall be dry, broom clean, free of grease, curing compounds, mortar or any matter that will impair adhesion, Maintain range of 70 Deg. F. to 90 Deg, F. for materials and subfloor for at least 24 hours prior to

installation.

C. Starting work shall be construed as acceptance of conditions under which work will be done.

3.02 Base Installation

A. Do not apply base until backing material has dried out completely. Cement base to wail and built-in cabinetwork using adhesive and method recommended by manufacturer.
B. Install base tight to wall and floor in straight line. Install pre-molded internal and external corners neatly and accurately. Scribe base accurately to door frames.
C. Base shall be installed continuous, without seams, joints or splices for all runs less than 120 feet.
D. Clean off surplus adhesive in accordance with manufacturer's installation directions using an approved cleaner, as the work progresses.

3.03 Cleaning and Protection

A. Maintain minimum temperature of 70 Deg. F. at finish floor until building is accepted by Owner.
B. Protect all resilient flooring which will be subjected to traffic, or which may be damaged due to subsequent construction operations, w/ heavy, non-staining Kraft paper or other approved means.
C. After all construction operations are completed clean all bases.

END OF SECTION

SECTION 096566

RESILIENT ATHLETIC FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Sheet vinyl resilient athletic flooring.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.
B. Manufacturer Certifications:
   1. Provide certification that accurately identifies the Original Equipment Manufacturer (OEM) of flooring furnished for this project including manufacturer's name, address and factory location.
      a. Suppliers of Private-Label flooring for this project must identify themselves as such and fully disclose the OEM information listed above.
      b. All "manufacturer" requirements in these specifications must be complied with by the OEM, including warranties, certifications, qualifications, product data, test results, environmental requirements, performance data, etc.
   2. Provide ISO 9001 certification for the OEM of the specified products.
   3. Provide ISO 14001 certification for the OEM of the specified products.
C. Laboratory Test Results:
   1. Provide certification of testing per ASTM F2772-11 and the product being furnished complies with the ASTM Indoor Sport Floor Classification specified for this project. Third-party certification required; sales literature is not sufficient.
D. Shop Drawings: Showing installation details and locations of borders, patterns, game lines, locations of floor inserts and seams.
E. Samples:
   1. Manufacturer's color chart for selection of available floors with a minimum of 10 standard colors available, including 2 wood visuals.
   2. Color samples:
      a. Wood visual samples Minimum 24 inches by 36 inches to show that the appearance of wood plank pattern complies with these specifications
      b. Solid color samples: Minimum 6 inches by 8 inches.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data:
   1. For a qualified resilient athletic flooring Manufacturer.
   2. For a qualified resilient athletic flooring Installer.

1.4 CLOSEOUT SUBMITTALS

A. Submit three copies of the following:
   1. Manufacturer maintenance instructions.
   2. Manufacturer material warranty.
   3. Installer installation warranty.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:
   1. ISO 9001 Certified.
   2. ISO 14001 Certified.
   3. At least ten years active experience in the manufacture and marketing of indoor resilient athletic flooring.
   4. A provider of authorized installer training.
B. Installer Qualifications:
   1. At least five years experience in the installation of resilient athletic flooring.
   2. Experience on at least five projects of similar size, type and complexity as this project.
   3. Employer of workers for this Project who are competent in techniques required by manufacturer for resilient athletic flooring installation indicated.
C. Fire Test Characteristics: As determined by testing identical products according to ASTM E 648, Class 1, by a qualified testing agency acceptable to authorities having jurisdiction.
D. Athletic Performance Properties: Comply with ASTM F 2772-11 Performance Level Class 4 for force reduction, ball bounce, vertical deformation and surface friction.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store flooring and installation materials in protected dry spaces, with ambient temperatures maintained within range recommended by manufacturer, but not less than 55 deg F (13 deg C) nor more than 85 deg F (29 deg C).
B. Store the indoor resilient athletic surfacing rolls in an upright position on a smooth flat surface immediately upon delivery to Project.

1.7 FIELD CONDITIONS

A. Product Installation:
   1. Maintain temperatures during installation within range recommended by manufacturer, but not less than 65 deg F (18 deg C) in spaces to receive flooring 48 prior, during and 48 hours after installation.
   2. After installation, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 85 deg F (29 deg C).
   3. Prohibit traffic during flooring installation and for at least 48 hours after flooring installation.
B. Install flooring only after other finishing work, including painting and overhead work, has been completed.

1.8 WARRANTY

A. Special Limited Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace sports flooring that fails within specified warranty period.
   1. Material warranty must be direct from the product manufacturer.
      a. Material warranties from separate or third party insurance providers are not valid.
      b. Material warranties from private label distributors are not valid.
   2. Failures include, but are not limited to, the following:
      a. Material manufacturing defects.
      b. Surface wear and deterioration to the point of wear-through.
      c. Failure due to substrate moisture exposure not exceeding 92 percent relative humidity when tested according to ASTM F2170 or 10 pounds moisture vapor emission rate when tested according to ASTM F1869.
   3. Warranty Period:
      a. For material and manufacturing defects and surface wear-through: 15 years from date of Substantial Completion.
      b. For moisture vapor tolerance: 1 year from date of Substantial Completion.
B. Special Limited Warranty: Installer's standard form in which installer agrees to repair or replace sports flooring that fails due to poor workmanship or faulty installation within the specified warranty period.

1. Warranty Period: 2 years from date of Substantial Completion.

1.9 COORDINATION

A. Coordinate layout and installation of flooring with other gymnasium equipment.

PART 2 - PRODUCTS

2.1 SHEET VINYL ATHLETIC FLOORING

A. Basis-of-Design Manufacture: Subject to compliance with requirements, provide Gerflor Taraflex Sport M Comfort Sports Flooring.
B. Substitution Limitations:
   1. All other manufacturers: Submit formal substitution request prior to bid in accordance with Section 012500 - "Substitution Procedures".
   2. Approval by Architect of other manufacturers does not relieve Contractor of responsibility to provide products that comply with all requirements of this specification.
C. Product Description: Class 4 shock absorption, Triple-durometer foam-backed sheet vinyl flooring.
   1. Overall Thickness: Not less than 0.47 inch (12 mm).
   2. Wear-Layer Thickness: Not less than 0.08 inch (2.1 mm)
   3. Foam Backing: Three layers closed cell foam of varying densities creating a triple durometer foam backing with 46 percent shock absorption.
   4. Fiberglass Grid Layer: A layer of woven fiberglass grid between the foam backing and top wear layer for dimensional stability.
      a. Basis-of-Design Product: Gerflor D-Max.
   5. Seaming Method: Heat welded.
   6. Traffic-Surface Texture: Wood visual shall have wood grain embossed texture for a genuine wood appearance and Solid colors to have “pebbled” embossed texture for an attractive appearance.
   7. Bacteriostatic and Fungicidal Treatment: Manufacturer’s factory-applied permanent treatment throughout the flooring material which can improve indoor air quality and reduce asthma and allergy risks associated with bacterial and mold growth.
      a. Basis-of-Design Product: Gerflor Sanosol
   8. Applied Finish: Manufacturer's, factory-applied, permanent and UV-cured.
      a. No-Wax finish: Published product literature identifying factory applied finish as, “No-Wax-Just clean and rinse”
      b. Basis-of-Design Product: Gerflor Protecsol.
   9. Field-Applied Finishes: None required and not allowed.
   10. Roll Size:
      a. Roll Width: Rolls to be a minimum width of 59 inches (1.5 m) wide.
      b. Roll Length:
         1) Wood visual rolls to be a minimum length of 86 feet, 6 inches (26.4 m) to minimize the number of end-seams.
         2) Solid color rolls to be a minimum length of 67 feet, 3 inches (20.5 m) to minimize the amount of waste if accent colors are selected for boarders, keys or center circle.
      c. Roll length of wood visual flooring shall be sufficient to cover the full length of a high school main basketball court (84’-0”) without splicing or end-of-roll (butt) seams within main court boundary.
   11. Color and Pattern:
      a. As selected by Owner from manufacturer's standard colors and patterns.
      b. Wood pattern shall accurately simulate the true visual appearance of natural athletic wood strip flooring.
         1) Pattern shall replicate random-length stock by simulating non-uniform board lengths ranging from 18 inches to 48 inches with a maximum board width of 2-1/2 inches.

2) Wood pattern shall not include a dark line simulating edges or ends of individual boards.
3) Surface texture shall simulate realistic wood grain and not be raised or "pebbled" embossing.

D. Performance Criteria:
1. ASTM F 2772-11 Indoor Sport Floor Standard:
a. Provide certification of compliance for the four ASTM F2772 Indoor Sport Floor Standard performance categories:
1) Shock Absorption/Force Reduction:
a) Class C4 (46% to 57%). Pass
2) Ball Bounce:
a) Minimum 90%: Pass
3) Surface effect/Coefficient of Friction:
a) Between 80-110: Pass
4) Vertical deformation:
a) Maximum 3.5mm: Pass
2. Chemical Resistance: ASTM D 543; OK.
3. Abrasion Resistance: EN ISO 5470; Pass.
4. Sound Insulation: EN ISO 717; 18 dB.
5. Gloss/Brightness: EN ISO 2813; Pass.
6. Organic Emission: ASTM D 5116; Pass
7. Fire Performance: ASTM E 648; Greater than 0.45 W/cm2, Class 1.
8. Surface Maintenance Requirements: No-wax surface requiring only cleaning and rinsing.
9. Slab Moisture Design Tolerance:
a. Maximum relative humidity of 92 percent when tested according to ASTM F 2170.
b. Maximum moisture vapor emission rate of 10 pounds of water per 1000 sq. ft. in 24 hours when tested according to ASTM F1869.

2.2 ACCESSORIES

A. Trowelable Leveling and Patching Compound: Latex-modified, hydraulic-cement-based formulation approved by athletic flooring manufacturer.
B. Adhesives: Water-resistant type recommended by athletic flooring manufacturer for substrate and conditions indicated.
a. Basis-of-Design Product: Gerflor Gerfix TPS.
C. Heat Welding Rod: As supplied by indoor resilient athletic flooring manufacturer. Color shall blend with resilient athletic flooring color.
D. Game-Line and Marker Paint: Complete system including primer, compatible with flooring and recommended by flooring and paint manufacturers.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify the Following:
1. The area in which the indoor resilient athletic flooring will be installed is dry, weather-tight and in compliance with specified requirements.
2. Permanent heat, lighting and ventilation systems are installed and operable.
3. Other work, including overhead work, that could cause damage, dirt, dust or otherwise interrupt installation has been completed or suspended.
4. No foreign materials or objects are present on the substrate and that it is clean and ready for preparation and installation.
5. Tests to verify that the moisture evaporative rate or substrate relative humidity is within the specified ranges.

6. The concrete slab surface pH level is within the specified range.
7. The concrete slab surface deviation is no greater than 3/16 inch within 10 feet (3.2 mm within 3 m) when measured according to ASTM E 1155.
8. The concrete slab complies with ACI 302.2R for concrete design including use of a low-permeance vapor barrier directly beneath the concrete subfloor with sealed penetrations.

3.2 PREPARATION

A. Prepare substrates according to manufacturer's written recommendations to ensure proper adhesion of resilient athletic flooring system.
B. Concrete Substrates: Prepare according to ASTM F 710.
   1. Verify that substrates are dry and free of sealers, curing compounds and other additives. Remove coatings and other substances that are incompatible with adhesives using mechanical methods recommended by manufacturer.
   2. Alkalinity Testing: Perform pH testing according to ASTM F 710. Proceed with installation only if pH readings are between 7.0 and 8.5.
C. Moisture Testing: Perform ASTM F 2170 relative humidity test and proceed with installation only after substrates have maximum relative humidity of 92 percent. Or perform ASTM F 1869 calcium chloride test and proceed with installation only after substrates have maximum moisture-vapor-emission rate of 10 lb of water/1000 sq. ft. in 24 hours.
D. Use trowelable concrete based leveling and patching compound with the same moisture vapor tolerance as the adhesive to fill depressions, holes, cracks, grooves or other irregularities in substrate.
E. Place flooring and installation materials into spaces where they will be installed at least 48 hours before installation. Install flooring materials only after they have reached the same temperature as space where they are to be installed.
F. Sweep and then vacuum substrates immediately before installation. After cleaning, examine substrate for moisture, alkaline salts, grit, dust or other contamination. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 SHEET ATHLETIC FLOORING INSTALLATION

A. General:
   1. Comply with resilient athletic flooring manufacturer's installation instructions.
   2. Take necessary precautions to minimize noise, odors, dust and inconvenience during installation.
   3. Fit flooring neatly and tightly to vertical surfaces, equipment anchors, floor outlets, and other interruptions of floor surface.
   4. Extend flooring into toe spaces, door reveals, closets, and similar openings unless otherwise indicated.
B. Lay out flooring as follows:
   1. Minimize number of seams and place them inconspicuous areas.
   2. Locate seams as shown on approved Shop Drawings
C. Adhesive Installation: Adhere flooring products to substrates by applying adhesive at seams and entire perimeter using an approved acrylic or pressure sensitive adhesive complying with adhesive and flooring manufacturer instructions.
D. Vinyl Sheet Flooring Seams: Finish seams to produce surfaces flush with adjoining flooring surfaces. Comply with ASTM F 1516. Rout joints and use heat-welding rod to permanently and seamlessly fuse sections together.

3.4 GAME LINES AND LOGOS

A. Lay out game lines and logos to comply with rules and diagrams published by National Federation of State High School Association for the sports activities indicated.
B. Mask flooring at game lines and logos, and apply paint of color indicated to produce clean, sharp and distinct edges.

3.5 CLEANING AND PROTECTION

A. Perform the following operations after completing resilient athletic flooring installation:
   1. Remove marks and blemishes from flooring surfaces.
   2. Sweep and then vacuum flooring.
   3. Damp-mop flooring to remove soiling.

B. Protect flooring from abrasions, indentations, and other damage from subsequent operations and placement of equipment, during remainder of construction period.

END OF SECTION

SECTION 099100

EXTERIOR AND INTERIOR PAINTING

PART 1 - GENERAL

1.01 Scope

A. Perform ail work required to complete the Finish Painting indicated by the Contract Documents and furnish all supplementary items necessary for its proper installation.
B. The requirements of Division 0 - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual shall apply to all work required for this section.
C. Paint to completion of all exposed surfaces throughout the Project, both interior and exterior with the exception of the following:
   1. Surfaces which are delivered to the job site with a factory finish, unless indicated to be painted.
   2. Nonferrous metals.
   3. Integral color Concrete, Stucco or Cementitious Coatings.
   4. Exposed concrete floors.
   5. Face brick.

1.02 Submittals

A. Detailed Painting Schedule
   1. Painting Schedule: ***Furnish a "Detailed Painting Schedule" for approval by the Architect. Indicate type of surface, type of paint material, and number of coats required, as set forth in the "Painting Requirements" hereinafter specified.***
   2. Submit brand designation and grade of the indicated type produced by the approved manufacturer for each application listed or required.
   3. Submit product analyses and performance characteristics for all paint materials as requested by the Architect.
   4. Submit approval of the "Detailed Painting Schedule" before delivering material to the job site.
   5. No claim by the Painting Contractor as to the unsuitability or unavailability of any material specified or his unwillingness to use same or his inability to produce first-class work with same will be entertained, unless such claims are made in writing and submitted with his bid.
   6. The Architect will check the "Detailed Painting Schedule" and if any painting material listed therein does not represent, in the opinion of the Architect, such highest quality of the manufacturer; the Architect may direct its replacement with an acceptable painting material at no additional cost to the Owner.
B. Samples
   1. Submit duplicate samples of each type paint finish proposed for use.
   2. Samples shall be 3"x6" on suitable materials and shall be as true a representation of finished work as is practicable.
   3. Label each sample and show various stages of finish on each sample.

1.03 Product Handling

A. Delivery
   1. Deliver material to job site in original, unopened containers and packages bearing manufacturers name, type of paint, stock number and color.
   2. Deliver all paints ready-mixed unless otherwise directed by the Architect.
B. Storage
   1. Keep storage area neat, clean and adequately protected from paint spillage. Repair damage caused to surfaces within storage areas.
   2. Dispose of all cloths and cotton waste that might constitute a fire hazard at the end of each workday.

1.04 Environmental Conditions

A. Do not apply paint of varnish under conditions that could adversely affect drying of final finish. Apply all materials under adequate illumination and ventilation.
B. Do not apply paint or varnish when temperature is less than 50 deg. F. or more than 90 deg. F., or when excess

humidity is present.

1.05 Protection

A. Protect or remove hardware, escutcheons, fixtures, plates, covers, and other items subject to damage or discoloration from painting.
B. Carefully and adequately protect, as required, all surfaces not requiring painting in areas where painting is being carried on. Use tarpaulins or other suitable covers, with supports, if needed, to protect adjacent or underlying surfaces.
C. Maintain all wrappings or other factory-applied protection furnished with finishing hardware or other items provided by other trades and installed in areas where painting is required. If wrappings are displaced or removed, protect surfaces for the duration of painting work.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

A. Material manufactured by The Sherwin Williams Company is the acceptable standard of quality. Coating systems from other listed manufacturers shall match the systems specified provided it complies with the Contract Documents.
1. PAINT:
Sherwin-Williams Company
Pratt and Lambert, Inc.
ICI
PPG industries, Inc.
Pittsburg Paint

2.02 Materials

A. PREPARED PAINTS AND COATINGS: All by the same manufacturer, unless otherwise specified.
B. TINTING COLORS: By manufacturer of Prepared Paint.
C. SPACKLING COMPOUND: Finely ground, grit-free when dry will set with no shrinkage to a smooth, hard, white surface and will sand properly and receive any finish.
D. PATCHING PLASTER: White, nonshrinking, containing no lime and uniform in set and quality.
E. TAPE AND BED MATERIALS:
1. JOINT TAPE. USF Perf-A-Tape
2. EMBEDDING AND FINISHING COMPOUND: USG Ready-Mixed Joint Compound All Purpose.
F. PRiMERS:
1. FERROUS METAL PRIMER: Sherwin Williams Pro-Cryl Universal Water Based Primer B66-310.
2. ALKYD GLOSS ENAMEL PRIMER: Sherwin Williams Pro-Cryl Universal Water Based Primer B66-310.
3. ALKYD WOOD PRİMER: Sherwin Williams Wall and Wood Primer B49W2.
4. OIL PANT PRMER: Sherwin Williams Wall and Wood Primer B49W2.
5. LATEX WALL PAINT PRIMER: Sherwin Williams Prep Rite High Build Primer B28W601 with texture to produce fine finish plaster appearance on Drywall.
6. SPOT PRIMER: Sherwin Williams Pro-Cryl Universal Water Based Primer B66-310.
7. GALVANIZED PRIMER: Sherwin Williams Pro-Cryl Universal Water Based Primer B66-310.
8. WATERPROOF EXTERHOR PRIMER/FINISH: Sherwin Williams Loxon XP.
G. FILLERS/SEALERS:
1. WOOD FILLER: Sherwin Williams Wood Filler.
2. KNOT SEALER: Formula WP0578 of the Western Pine Association.
H. ALKYD/OIL BASE PAINTS:
1. ALKYD GLOSS ENAMEL: Sherwin Williams Industrial Enamel B54 Series.
2. ALKYD SEMEGLOSS ENAMEL: Sherwin Williams Pro Mar Alkyd Semi-Gloss.
I. LATEX PAINTS:
1. LATEX FLAT WALL PAINT. Sherwin Williams Harmony Low Odor, Antimicrobial, Zero VOC, Latex Finish, Flat, Egg-Shell and Semi-Gloss.
2. LATEX MASONRY PAINT, ACRYLIC: Sherwin Williams Loxon XP.
3. VINYL LATEX EMULSION: Sher-Tex medium texture.

J. LACQUER: Fed. Spec. TTP-P-143.
K. WOOD STAIN: Sherwin Williams Semi-Transparent Polyurethane Exterior Stain A15T5.
L. WOOD STAIN: Sherwin Williams Woodscapes Solid Color Acrylic House Stain A15 Series.
M. OIL: Watco Danish Oil
N. WAX. Watco Satin Carnauba Liquid Wax
P. INTERIOR EPOXY:
   1. One (1) coat Sherwin Williams Heavy Duty block-filler; then
   2. Sherwin Williams Water Based Epoxy B70 Series.
Q. EXTERIOR EPOXY.
   1. Sherwin Williams two (2) coat Loxon block surfacer A24W200.
   2. Two (2) coats conflex XL high build elastomeric coating A5-400.
R. FIRE RETARDANT PAINT: Sherwin Williams Flame Control No. 20-20 interior fire retardant flat latex, shall be used on all exposed painted wood except doors and millwork.

2.03 Mixing

A. Tint prime coats and undercoats approximately to the shade of the final coat, but each with a slight variation in color to distinguish them from the preceding coat.
B. Apply paint of consistency recommended by manufacturer. Additional thinning permitted only w/ specified approval.
C. Use factory mixed colors, shades, and tints with finish paints matching the approved color samples. Job mixing permitted only with specific approval.

2.04 Finish and Colors

A. Paint colors shall be as selected by the Architect. Before any work is begun, the Architect will furnish the Painting Contractor with a color schedule and/or chips showing where the various colors shall be used.
B. *60% of wall paint shall cover field wall and accent walls and surfaces terminating at corners, floor, and ceilings, 40% of wall paint shall be accent stripping, wall patterns, logo, or graphics as selected by architect.*

PART 3 - EXECUTION

3.01 Conditions of Surfaces

A. Examine surfaces to receive painting before beginning work and correct defects that could affect quality of finished work. Prepare surfaces, as necessary, to receive painting as specified. Retouch shop coats and prime.
B. Starting painting work shall be construed as evidence of acceptance of conditions under which work will be done.
C. Clean surfaces to be painted and spaces in which painting will be done, broom-clean and dust-free. Remove soil, prints, stains, and adhered materials that would affect finish painting.
D. If acids have been used for cleaning, all traces of acid shall be thoroughly neutralized and rinsed and dried before any paint is applied.
E. Meet requirements of other portions of specifications for preparation of specific items.
F. Apply primer or first coat immediately after surface preparation to prevent contamination of the surface.

3.02 Preparation

A. Shop Painted Ferrous Metal
   1. Clean surfaces free of concrete, mortar, plaster, rust, shavings, dirt, dust and other objectionable materials. Remove grease and oil with gasoline, benzine or other similar volatile cleaner. Use cleaner when space is properly ventilated and not in the presence of any open flame.
   2. Touch up abraded or marred shop coats with spot primer specified.
B. Unpainted Ferrous Metal
   1. Clean surfaces free of loose scale, rust, shavings, filings, dirt, dust and other objectionable material with wire brushes or other proper and acceptable means.
   2. Remove grease and oil with gasoline, benzine or other similar volatile cleaner. Sandblast or wire brush to base metal all rusted areas on exposed exterior members. Use cleaner when space is properly ventilated and not in the presence of any open flame.
C. Zinc-Coated Metal (Galvanized)

1. Clean surfaces free of loose particles and other objectionable material. Remove grease and oil with mineral spirits or other similar cleaner.
2. Coat welded, chipped or abraded surfaces with "Galvalloy" galvanizing stick compound or ZRC Zinc Coating after wire brush cleaning.
3. Treat Surfaces with an approved chemical compound such as a phosphoric acid-wash. Remove chemical compound completely with clean, fresh water and thoroughly dry surfaces prior to priming.

D. Gypsum Board
1. Mix and apply tape and bedding system in accordance with the manufacturer's recommendations.
2. Apply joint compound (embedding coat) to internal angles and butt joints approximately 3" wide and sufficiently thick to hide board surfaces. Cover screw heads and depressions with compound.
3. Apply tape to angles and joints, centered and seated into compound leaving sufficient compound under tape to provide proper bond. Apply a skim coat of compound over tape and clean excess compound from wallboard surface.
4. When first coat has thoroughly dried, apply second coat (fill coat) over embedding coat, filling board taper flush with board surface. For joints without taper, feather out 4" on either side of tape.
5. When second coat has thoroughly dried, apply third coat (finishing coat) tapered beyond edges of second coat & feathered to a smooth uniform finish that does not protrude beyond the plane of the board surface.
6. Apply at least two coats of compound to flanges of corner beads and metal edging. Extend compound approximately 8 to 10 inches either side of exposed metal. Apply three coats of compound in succession for all dimples at fastener heads.
7. Sand all coats after each application has dried and leave wallboard and treated areas uniformly smooth, ready to receive decoration.

E. Piaster: Integral color or painted; refer to drawings.

F. Wood
1. Clean knots, pitch streaks or visible sap spots free of residue and treat with Knot Sealer. Apply second coat of sealer no less than two hours after the application of the first coat.
2. Fill nail holes and other indentations with wood filler after first coat, matching color of stain or paint. Finish flush with adjacent surfaces.
3. Sand wood surfaces smooth with No. 00 sand paper and remove dust prior to painting.

G. Factory Finished Items
1. Factory finished items requiring painting shall be etched or otherwise prepared in an approved manner to receive final finish coat.

H. Insulation
1. Clean surfaces of pipe, duct and equipment insulation, such as canvas jackets and troweled-on insulation and of rigid wall or ceiling insulation where items are required to be painted.
2. Remove all loose, foreign and objectionable material prior to the application of any paint materials.

I. Copper Piping
1. Wash surfaces with a 5 percent acetic acid solution and allow to dry. Do not damage adjacent surfaces due to acid spillage.

J. Aluminum: Prefinished (or anodized) aluminum shall not be painted.
1. Remove oil or grease film by washing surfaces with mineral spirits or turpentine. Allow new, bare aluminum to weather for a month or roughen with steel wool before painting.

3.03 Application

A. Do not open containers until required for use. Thoroughly mix paint before application and frequently stir during application so as to maintain pigment satisfactorily in suspension.

B. Do not thin paint in excess of the printed directions of the manufacturer. Do not allow caking or setting of pigment into a hard mass.

C. Apply paint uniformly without visible laps, sags, curtains, holidays or objectionable brushmarks. Exercise care so that paint does not splatter on surfaces not required to be painted. Remove promptly paint applied or splattered on surfaces not required to be painted.

D. Insure that all primer and intermediate coats of paint are unscarred and completely integral at the time of application of each succeeding coat. Allow sufficient time between coats to ensure proper drying.

E. Sand between all coats on wood and-metal surfaces prior to the application of succeeding coats.

F. Remove doors for painting tops and bottoms. Finish top and bottom edges of doors the same as faces, after fitting.

G. Match final coat of paint in color, tint and hue with the color displays approved by the Architect.

H. Paint edges of doors occurring between rooms or spaces having different finishes the same as the room or space from which the same are visible when the door is in a partly opened position.
I. Paint factory finished access panels, registers, grilles, diffusers, electrical panel boxes, connector covers and similar items the same color as adjoining wails or ceilings. Use color as directed where adjacent surfaces do not require painting.
J. Finish all closets the same as the adjoining rooms, unless otherwise specified. Finish all other surfaces the same as nearest or adjoining surfaces unless otherwise shown.
K. Paint exposed insulated and non-insulated piping, conduits, duct work and hangers a color and texture to match walls or ceilings adjacent to it. Where adjacent surfaces are unpainted, use color as directed.
L. Back-prime all interior wood trim before installation, with alkyd primer or Okene Preservative.
M. Protect all accent colors on wails with a coating of pale varnish as approved by the Architect.
N. Application of Oil Finish:
1. Apply Watco oil for saturated coat with brush or rag. Let set 30 minutes. Repeat procedure and let set 5 to 10 minutes. Wipe off excess with clean dry rag.
2. Let set overnight. Repeat entire procedure.
3. Let set overnight. Sand with light sandpaper. Apply coat of liquid wax and buff with clean dry rag.
4. Match sample in Architect's office.

3.04 Field Quality Control

A. When painting is to be started, the manufacturer whose materials have been approved for use shall furnish competent technical assistance on the job to ensure that his materials are being applied properly. Manufacturer's assistance shall be available at all times until completion of the work.
B. Each coat must be inspected and approved before application of the succeeding specified coat, otherwise no credit for the coat applied will be given and the Contractor automatically assumes the responsibility to recoat the work in question.
C. Application equipment shall be cleaned a minimum of daily and no work shall be done with equipment which leaves adulterants in the coat of paint being applied.

3.05 Cleaning

A. Remove from the premises upon completion of the work all staging, scaffolding and containers.
B. Remove misplaced paint spots, oil or stains upon adjacent surfaces and leave the entire work in a clean condition. Touch up and restore finish where damaged.

3.06 Painting Schedule

A. EXTERIOR WORK
1. Iron and Steel

1st coat	Sherwin Williams Pro-Cryl Universal Metal Primer
2nd coat	Sherwin Williams DTM Acrylic Semi-Gloss
3rd coat	Sherwin Williams DTM Acrylic Semi-Gloss

2. Galvanized Iron and Steel

1st coat	Sherwin Williams Pro-Cryl Universal Metal Primer
2nd coat	Sherwin Williams DTM Acrylic Semi-Gloss
3rd coat	Sherwin Williams DTM Acrylic Semi-Gloss

3. Machinery and Equipment.

Spot Prime	Sherwin Williams Pro-Cryl Universal Metal Primer
2nd Coat	Sherwin Williams Industrial Enamel

4. Exterior CMU

2 coats	Sherwin Williams Loxon block surfacer A24W200
2 coats	Sherwin Williams Conflex XL high build elastomeric coating A5-400

5. Exterior Masonry

1st coat	Blok-Guard & Graffiti Control by Prosoco Clear

B. INTERIOR WORK
1. Miscellaneous iron and Steel

1st coat	Sherwin Williams Pro-Cry Universal Metal Primer
2nd coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss

	3rd coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss
2.	Primer Miscellaneous Iron and Steel	
	Spot Prime	Sherwin Williams Pro-Cry Universal Metal Primer
	1st coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss
	2nd coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss
3.	Galvanized Iron and Steel	
	1st coat	Sherwin Williams Pro-Cryl Universal Metal Primer
	2nd coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss
	3rd coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss
4.	Bonderized Steel	
	1st coat	Sherwin Williams Pro-Cryl Universal Metal Primer
	2nd coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss
	3rd coat	Sherwin Williams Pro Mar Alkyd Semi-Gloss
5.	Gypsum Drywall	
	1st coat	Sherwin Williams Prep Rite Hi-Build Primer
	2nd coat	Sherwin Williams Harmony Latex Egg-Shell
	3rd coat	Sherwin Williams Harmony Latex Egg-Shell
6.	Portland Cement Plaster & Stucco (that is not integral color)	
	1st coat	Sherwin Williams Prep Rite Masonry Primer
	2nd coat	Sherwin Williams Harmony Latex Egg-Shell
	3rd coat	Sherwin Williams Harmony Latex Egg-Shell
7.	Wood Surfaces (Natural Finish)	
	1st coat	Oil
	2nd coat	Oil
	3rd coat	Oil
	4th coat	Wax
8.	Wood Surfaces (Stained)	
	1st coat	Stain
	2nd coat	Filler (open grain wood, only)
	3rd coat	Lacquer Sanding Sealer
	4th coat	Dull Rubbed Lacquer
	5th coat	Dull Rubbed Lacquer
9.	Machinery and Equipment	
	Spot Prime	Sherwin Williams Pro-Cryl Primer
	2nd Coat	Sherwin Williams industrial Enamel
10.	Exposed Canvas Covered Piping	
	1st coat	Sherwin Williams Prep Rite 400 Latex Primer
	2nd coat	To match paint specified for
	3rd coat	coats adjoining surfaces
11.	Exposed Rigid insulation	
	1st coat	Primer as recommended by the manufacturer of the finish coats XIM, UMA 400 Bonding Primer
	2nd coat	Sherwin Williams Pro Mar Alkyd Eggshell Enamel
12.	Exposed-High: Temperature Metal Piping	
	1st coat	Sherwin Williams Kem Hi Temp Heat Resistant Paint
	2nd coat	Sherwin Williams Kem Hi Temp Heat Resistant Paint
13.	CMU	
	1st coat	Sherwin Williams Heavy Duty Block Filler or Loxon Block Surfacer
	2nd coat	Sherwin Williams *Incredicoat Latex Semi-Gloss or Water Based Epoxy
	3rd coat	Sherwin Williams *Incredicoat Latex Semi-Gloss or Water Based Epoxy

*Substitutions must meet a minimum pencil hardness of “HB” or “H” per ASTM D3363.

3.07 Pipe Identification

A. Conform to requirements of ASA A13, "Scheme for the identification of Pipe Systems," as published by the American Society of Mechanical Engineers. Provide complete painting of piping in mechanical rooms only.

B. Color Coding:

1. Domestic Water, Cold or Hot — Green SW4085

2. Chilled, Heating or Condenser - Water - Green SW4085
3. Gas - Orange SW4083
4. Air - White SW4087
5. Condensate - Black SW4090
6. Electric Conduit - Yellow SW4084
7. Oil - Orange SW4083
8. Drain Lines - Black SW4090
9. Steam - Orange SW4083
10. Fire Protection Sprinkler – Red SW4081

3.08 Smoke and Fire Walls

A. Contractor shall identify all one hour smoke walls and horizontal exit walls, by painting with stencil on both sides of wall, the rating which applies to the wall, Identifications shall be 11'-0" above finish floor, or above finish ceiling where wall does not extend above 11'-0", and shall be spaced at maximum distance of 29'-0" oc. Height of letters shall be 4". Color of paint for letters will be Black.

END OF SECTION

SECTION 102800

TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 - GENERAL

1.01 Scope

A. Perform all work required to complete the Toilet Room Accessories indicated by the Contract Documents and furnish all supplementary items necessary for their proper installation.
B. The requirements of Division 0 - "Bidding and Contract Requirements" and Division 1 - "General Requirements" of this Project Manual shall apply to all Work required for this Section.

1.02 Submittals

A. Samples:
   1. Submit for approval samples of typical accessories showing construction and finish specified.
B. Shop Drawings:
   1. Submit manufacturer's literature and mark sufficiently to indicate compliance with these specifications. Show locations, methods of supporting methods of anchoring and finishes of each accessory.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

A. Material manufactured by any of the following manufacturers is acceptable, provided it complies with the Contract Documents.
   1. Bradley Corporation
   2. The Bobrick Company
   3. The Charles Parker Company
   4. American Dispenser Company, Inc.

2.02 Materials

(Schedule of Accessories - BOBRICK numbers are used herein)
A. *At each Water Closet: Contractor shall install & furnish toilet tissue dispenser #B-274.*
B. *At each room marked "CUSTODIAN" or "JANITOR" (located above service sink} provide and install one (1) B-223 stainless steel mop and broom holder.*
C. *At each lavatory or sink furnish & install surface mounted soap dispenser #B-5050.*
D. *At each handicapped Water Closet and handicap showers:*
   1. *Grab Bars:*
      a. *Provide and install BOBRICK, or approved equal, B-610x48", 42", 36", or 24" x 1 1/2" diameter stainless steel grab bars. Bars shall be mounted as indicated on the Drawings, parallel to finish floor, exactly 1 1/2" clearance from wait to inside of bar. Bar surface shall be peened. Refer to Drawings for locations and sizes.*
      b. *Bars shall he manufactured and installed in complete compliance with State of Texas Senate Bill No. 111-61st Legis. as amended by H. B. 1319 - 62nd Legis. and S. B. 613 — 63rd Legis.*
F. *At each lavatory or sink furnish & install a Paper Towel Dispenser: BOBRICK#B-359*
G. *At each lavatory or sink furnish & install Waste Receptacle: BOBRICK #B-3644.*

PART 3 - EXECUTION

3.01 Installation

A. Install accessories according to manufacturer's instructions and approved shop drawings. Install accessories plumb, Square, level and true with wall or surfaces. Install grab bars where scheduled to support a minimum load of 300 pounds downward pull.
B. Frames of recessed accessories shall neatly the opening. Gaps and voids between frames and finished walls will not be

allowed, Exposed and concealed fastening shall match finish of fixtures and shall be stainless steel, theft proof type.

C. Install concealed anchor plates to wall construction for mounting all accessories. Provide grounds or rough bucks to rigidly secure accessories.

3.02 Cleaning

A. Remove all manufacturers temporary labels or marks of identification. Clean and polish to remove all oil, grease and foreign material. Leave accessories in a neat, orderly and clean condition acceptable to the Architect.

END OF SECTION

SECTION 103500

FLAGPOLE

PART 1 - GENERAL

1.1 SCOPE

A. Perform all work required to complete the Flagpole indicated by the Contract Documents and furnish all supplementary items necessary for its proper installation.

1.2 SUBMITTALS

A. SHOP DRAWINGS: Submit manufacturer's literature and mark sufficiently to indicate compliance with these specifications.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS:

A. Material manufactured by any of the following manufacturers is acceptable, provided it complies with the Contract Documents.
1. Concord Industries Inc., Addison, TX; www.concordindustries.com
2. POLE TECH Company Inc., East Setauket, NY; www.poletech.com

2.2 MATERIALS:

A. Pole shall be cone tapered aluminum commercial ground set flagpole complete with all standard fittings as listed below:

B. Install concrete foundation with 16 gauge galvanized corrugated steel 12" diameter with, 6" x 6" x 1/4" base plate, 6’ x 6” x 1/4" plate support, 3/4" diameter x 18” long steel lightning ground spike welded to plates, four (4) welded steel wedges.

C. Pole shall be standard type 30' exposed height, 3'-0" setting depth, 33' total length. Outside butt diameter shall be 6", tapered top diameter 3 1/2', 6” diameter ball; provide four (4) bronze swivel type snap nooks, with aluminum flash collar. Provide one (1) pole of this height.

D. Flagpole shall have wall thickness throughout of not less than .188" and shall have uniform conical taper throughout tapered portion. Pole shall be machine made of 6063-T6 seamless extruded aluminum; NOT from rolled plate with welded seam. Pole must have smooth uninterrupted exterior surface without visible offsets. Pole shall be shipped in one piece, Exterior surface shall have "ultrasheen" finish, painting will not be permitted. Prior to shipment, pole shall be heavily spiral-wrapped with polyethylene and further protected during transit.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install in accordance with manufacturer's written requirements and details.

END OF SECTION

SECTION 104200

BUILDING PLAQUE

PART 1 - GENERAL

1.1 SCOPE

A. Perform all work required to complete building plaque seal and letters the indicated by the Contract Documents and furnish all supplementary items necessary for its proper installation.

1.2 SUBMITTALS

A. SAMPLES:
1. Submit for approval samples of typical accessories showing construction and finish specified.

B. SHOP DRAWINGS:
1. Submit manufacturer's literature and mark sufficiently to indicate compliance with these specifications. Show locations, methods of supporting, methods of anchoring and finishes of each accessory.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Material manufactured by any of the following manufacturers is acceptable, provided it complies with the Contract Documents:
1. SOUTHWELL COMPANY,
2. ARKRAMOS,
3. Or approved equal.

2.2 MATERIALS

A. Plaque:
1. Tablet shall be cast from high quality aluminum ingots. Casting shall be free of all pits and holes and all letters shall be sharp and hand tooled.
2. Border and faces of raised letters shall be stain finished and background shall be stippled and finished and oxidized. Two protective coatings of clear lacquer shall be sprayed on completed tablet.
3. Tablet shall be standard edge and no-border design.
   a. Letter Style: Modern block, 18"x24".
4. The design shall consist of more than two (2} sizes of letters and graphic logo.
5. Plaque shall have the following:
   a. Name of the Project, Precinct Number
   b. Name of Hidalgo County Judge
   c. Names of Hidalgo County Commissioners
   d. Name of the Architect
   e. Name of the General Contractor
   d. Logo: Seal of Hidalgo County, Texas

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install in accordance with manufacturer's instructions and approved shop drawings.
B. Install plaque plumb, square, level and true with wall or surfaces.

3.2 CLEANING

A. Remove all manufacturer's temporary labels or marks of identification. Clean and polish to remove all oil, grease, and foreign material. Leave in a neat, orderly and clean condition acceptable to the Architect.

3.3 VERIFICATION

A. Verify exact text and layout of plaque with Architect prior to manufacture.
B. Verify installation location with Architect prior to installation. Provide all necessary anchoring accessories.

END OF SECTION

SECTION 104300

DIMENSIONAL LETTERS

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents: Provisions established within the General and Supplementary Conditions of the Contract, Division 1 - General Requirements and the Drawings are collectively applicable to this Section.
B. Section Includes: Exterior dimensional letters of lightweight fabricated metal construction.

1.2 QUALITY ASSURANCE

A. Supplier: Obtain all products in this section from a single supplier.
B. Installer: installer specialized and experienced in work similar to that required for this project shall perform Installation.

1.3 SUBMITTALS

A. See Section 013300 - SUBMITTAL PROCEDURES
B. Product Data: Submit product data for specified products. Include material details for each sign specified.
C. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including dimensions, anchorage, and accessories.
D. Samples: Submit supplier’s standard color chart for selection purposes and selected colors for verification purposes.
E. Installation: Submit supplier’s installation instructions.
F. Closeout Submittals:
    1. Submit operation and maintenance data for installed products, including precautions against harmful cleaning materials and methods.
    2. Submit warranty documents specified herein.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Comply with requirements of Division 1.
    1. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
    2. Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact.
    3. Store products protected from weather, temperature, and other harmful conditions as recommended by supplier.
    4. Handle products in accordance with manufacturer's instructions.

1.5 WARRANTY

A. Project Warranty: Comply with requirements of Division 1.
B. Manufacturer's Warranty: Submit manufacturer's standard warranty document executed by authorized company official.
    1. Warranty Period: One (1) year from product ship date. Warranty specifically excludes letter mounting substrate.

PART 2 - PRODUCTS

2.1 SIGNAGE SYSTEMS

A. Acceptable Manufacturers:
   1. ASI Sign Systems Inc., 3860 W. Northwest Highway, Suite 350, Dallas, TX 75220; (214) 352- 9140 telephone; (214) 352-9741 facsimile; (800) ASI-SPEC [274-7732]
   2. Valerio Signs Company, 7017 Portillo Court, Weslaco, TX 78596; (956) 647-0993
   3. Substitutions: Submit in accordance with Section 016000.
B. Acceptable Product: Series LF, Light Weight Fabricated Metal Dimensional Letters.
C. Letter Material:
   1. Body: Aluminum in Baked Enamel, color selected by Architect
   2. Face: Acrylic, color selected by Architect.
   3. Trim Cap: 1" thick, color selected by Architect.
D. Fabricated Letters:
   1. Height: 42".
   2. Depth: 4"
   3. Letter style: Helvetica Neue - Regular.
E. Provide LED lighting within each letter.
F. Mounting Method: Mechanically Attached Back with aluminum raceway anchored to building structure.

2.2 FABRICATION - GENERAL

A. General: Comply with requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes, and details of construction.
B. Design, fabricate, and install sign assemblies to prevent buckling, opening up of joints, and over-stressing of welds and fasteners.
C. Mill joints to a tight, hairline fit. Form joints exposed to the weather to exclude water penetration.
D. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.
E. Create signage to required sizes and layout. Comply with requirements indicated for design, dimensions, finish, color, and details of construction.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Site Verification of Conditions: Verify installation conditions previously established under other sections are acceptable for product installation in accordance with manufacturer's instructions.
B. Scheduling of installation by Owner or it’s representative implies that substrate and conditions are prepared and ready for product installation. Proceeding with installation implies installer’s acceptance of substrate and conditions.

3.2 INSTALLATION

A. Install product in accordance with supplier’s instructions.
B. Install product in locations indicated using mounting methods recommended by sign manufacturer and free from distortion, warp, or defect adversely affecting appearance.
C. Install product level, plumb, and at heights indicated.
D. Install signs within the following tolerances and in accordance with manufacturer's recommendations:
   1. Exterior Signs: Within 1 inch vertically and horizontally of intended location.

3.3 CLEANING, PROTECTION, AND REPAIR

A. Repair scratches and other damage that might have occurred during installation. Replace components where repairs were made but are still visible to the unaided eye from a distance of 10 feet.

B. Remove temporary coverings and protection to adjacent work areas. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project in accordance with provisions in Division 1.

3.4 REFERENCE

A. Refer to Drawings for size, location, and layout of signage, including sign text copy.

END OF SECTION

SECTION 104410

PLASTIC ROOM IDENTIFICATION SIGNS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Engraved plastic signs.
B. Raised letter plastic signs.
C. Signs made of individual plastic letters.

1.02 REFERENCES

A. ANSI/ICC A117.1 - American National Standard for Accessible and Usable Buildings and Facilities; International Code Council; 1998.

1.03 SUBMITTALS

A. See Section 013000 - SUBMITTAL PROCEDURES.
B. Shop Drawings: Indicate sign styles, lettering font, foreground and background colors, locations, overall dimensions of each sign. Provide sign schedule and sign type based on three types sized as follows: 6"x8", 8"x6", 8"x8".
C. Samples: Submit one of each sign type and size illustrating style, letter font, and colors specified for method of attachment.
D. Manufacturer's Installation Instructions: Include installation template and attachment devices.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

1.05 DELIVERY, STORAGE, AND PROTECTION

A. Package signs, labeled in name groups.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Do not install signs when ambient temperature is lower than recommended by manufacturer.
B. Maintain this minimum temperature during and after installation of signs.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Plastic Signs:
    1. Best Sign Systems, Inc: www.bestsigns.com.
    2. Bayuk Graphics Systems, Inc.: 717-442-0274.
    3. Austin Arcitectural Signage: 512-473-2075.
    4. Substitutions: See Section 016000 - Product Requirements.

2.02 ENGRAVED SIGNS

A. Engraved Signs: Laminated colored plastic; lettering engraved through face to expose core color:
   1. Comply with applicable provisions of ANSI/ICC A117.1, including Braille.
   2. Face Color: to be selected from manufacturer's standard color selections
   3. Core Color: to be selected from manufacturer's standard color selections.
   4. Total Thickness: 1/8 inch.

2.03 RAISED LETTER SIGNS

A. Base Material: Clear acrylic plastic:
B. Raised Character Size and Style: Acrylic plastic, character adhered to base material:
   1. Comply with applicable provisions of ANSI/ICC A117.1, including Braille.
   2. Character Color: As selected by Architect.
   3. Character Font: Helvetica.
   4. Character Case: Upper case only.

2.04 ACCESSORIES

A. Tape Adhesive: Double sided tape, permanent adhesive.
B. Mounting Hardware: Chrome screws.
C. Silver/chrome spacers or stand-off studs.

2.05 INDIVIDUAL GRAPHICS (Plastic Letters for Building Exterior)

A. Material: Solid color acrylic plastic:
   1. Thickness: 1 inch.
   2. Height: 14 inches and 20 inches
   3. Edges: Square
   4. Attachment Method: Manufacturer's recommended method for the substrate on which letters will be mounted. Provide stainless steel components to prevent staining of the exterior wall.
B. Character Style:
   1. Character Color: As selected by Architect from manufacturer's standard offerings.
   2. Character Font: Arial
   3. Character Case: Upper Case only.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.
B. Position signs as indicated on drawings.

3.03 SCHEDULES

A. VERIFY WITH ARCHITECT AND OWNER FOR EXACT ROOM NAMES AND LOCATIONS

END OF SECTION

SECTION 104413

FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Fire extinguishers.
B. Fire extinguisher cabinets.
C. Accessories.

1.02 RELATED REQUIREMENTS

A. Section 061000 - Rough Carpentry

1.03 REFERENCE STANDARDS

A. NFPA 10 - Standard for Portable Fire Extinguishers; National Fire Protection Association; 2007.
B. UL (FPED) - Fire Protection Equipment Directory; Underwriters Laboratories Inc.; current edition.

1.04 PERFORMANCE REQUIREMENTS

A. Provide extinguishers classified and labeled by Underwriters Laboratories Inc. for the purpose specified and indicated.

1.05 SUBMITTALS

A. See Section 013000 - SUBMITTAL PROCEDURES.
B. Shop Drawings: Indicate cabinet physical dimensions and rough-in measurements for recessed cabinets.
C. Product Data: Provide extinguisher operational features, color and finish, and anchorage details.
D. Manufacturer's Installation Instructions: Indicate special criteria and wall opening coordination requirements.
E. Maintenance Data: Include test, refill or recharge schedules and re-certification requirements.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Basis of dsign is Larsen's Manufacturing Co; Product FS2712-R cabinet and Model Number MP-10 extinguisher: www.larsensmfg.com.
B. Other acceptable manufacturers:
   1. JL Industries, Inc: www.jlindustries.com.
   2. Potter-Roemer: www.potterroemer.com.
C. Substitutions: See Section 016000 - Product Requirements.

2.02 FIRE EXTINGUISHERS

A. Fire Extinguishers - General: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
   1. Provide extinguishers labeled by Underwriters Laboratories Inc. for the purpose specified and indicated.
B. Dry Chemical Type Fire Extinguishers: Cast steel tank, with pressure gage.
   1. Class Multi-Purpose.
   2. Size 10.
   3. Finish: Baked enamel, color as selected.

2.03 FIRE EXTINGUISHER CABINETS

A. Metal: Formed primed steel sheet; 0.036 inch thick base metal.
B. Cabinet Configuration: Recessed type.
   1. Sized to accommodate accessories.
C. Door: 0.036 inch thick, reinforced for flatness and rigidity; latch. Hinge doors for 180 degree opening with two butt hinge. Provide nylon catch.
D. Door Glazing: Glass, clear, 1/8 inch thick float. Set in resilient channel gasket glazing.
E. Cabinet Mounting Hardware: Appropriate to cabinet. Pre-drill for anchors.
F. Finish of Cabinet Exterior Trim and Door: Red baked enamel.
G. Finish of Cabinet Interior: White enamel.

2.04 ACCESSORIES

A. Extinguisher Brackets: Formed steel, chrome-plated.
B. Cabinet Signage: FIRE EXTINGUISHER.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify rough openings for cabinet are correctly sized and located.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.
B. Install cabinets plumb and level in wall openings, 30 inches from finished floor to inside bottom of cabinet.

END OF SECTION

SECTION 105300

PROTECTIVE COVERS

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Provision, fabrication and installation of Extruded Aluminum Walkway Canopy, as shown on drawings and specified herein, and as needed for a complete and proper installation.

1.2 RELATED WORK

A. 072500 Weather Barriers
B. 074213.13 Preformed Metal Wall Panels

1.3 REFERENCE STANDARDS

A. ASTM 8209 Aluminum - Alloy Sheet and Plate
B. ASTM 8221 Aluminum - Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes

1.4. SAMPLES

A. Submit Samples in accordance with Section 013000
B. Provide two samples of specified finishes: minimum size: 2-1/2” x 4”

1.5 SHOP DRAWINGS

A. Furnish minimum six (6) sets of shop drawings and cut sheets in accordance with Section 013000.
B. Contractor shall submit shop drawings for approval by the Architect prior to fabrication of any materials. Shop Drawings shall clearly illustrate all details, including, but not limited to: Plan views, column layout and measurements, footing sizing and details, drainage locations and details, building waii condition details, flashing details, Canopy component sizing and thickness, Fastener sizing, large scale assembly details, and finishes by component, General Contractor to verify all dimensions and elevations prior to submittal to Architect and are to be checked by Manufacturer prior to fabrication. The site specific shop drawings and calculations shall bear the seal of a Texas certified Civil or Structural engineer.

1.6 ENGINEERING REQUIREMENTS

A. Canopies shall be capable of withstanding a 20% Live Load and 90 mph Wind Load (Uniform Building Code), or as required by state and local building codes. Structure shall be capable of sustaining hurricane force winds, hail, and support being walked on,

1.7 ACCEPTABLE MANUFACTURERS

A. Aluminum canopies shall be an all Extruded Aluminum Canopy System as manufactured by:
   1. AVAdek, 12130 Galveston Road, Building 1, Webster TX 77598, (713) 944-0988 or (800) 7774031, www.avadek.com
   2. an equal substitute with written approval 10 days prior to bid date and so noted by addendum.
B. Substitutions. Other manufacturers must have a minimum of 10 years experience manufacturing extruded canopies and having products that meet or exceed the specifications and which serve the same function, performance, sizing, and appearance. Submit for approval in conformance with

1.8 MATERIALS

A. Storage and Handling: Protect components from one another during shipping, storage and handling.
B. Protection: Protect finish on aluminum as required. Protective film to remain during erection and is to be stripped prior to Substantial Completion.

1.9 WARRANTY

A. Provide manufacturer's 1-year warranty against defects in material and workmanship, and one year warranty on field installation.

PART 2 – COMPONENTS

2.1 MATERIALS

A. All components shall be 6063; 6061 or 6005 alloy extruded aluminum.
B. Components shall be sized to comply with live load and wind load requirements of the project and shall not be less than the dimensions shown on the plan.

D. All columns shall have radius corners.
E. Beams are open at top to drain canopy system internally into columns.

2.2 SIZING

A. Component minimum sizing shall be as specified. Manufacturer shall be responsible for reviewing drawings to be sure components used meet engineering criteria and the proposed product meets the project needs prior to bidding. Ali components are to be Extruded Aluminum 6063-T6 or 6061-T6 (minimum 30,000-psi yield strength). Roll-Formed Components are not acceptable.
B. The thickness of the aluminum deck panels shall be at least .080" thick.
C. Flashing shall be .040" thick.
D. All bolts and fasteners shall be stainless steel or finished to match adjacent components and sized by canopy engineer.

2.3 STRUCTURE

A. Shall be a welded bent system as detailed in the drawings. Hidden welded connections may be used when shipping limitations require, which must be so noted and approved on the shop drawings. (Component sizes noted are minimums)
   1. Beams: Shall be min. 4” x 8” Extruded Aluminum required with min. 1/8” radius corners.
   2. Concealed Drainage. Water shall drain from the roof deck to the beams spouting at ground level through Scuppers.

2.4 DECKING

A. Roof Deck. Shall be min 2-3/4” x 6.00°x min. .078” thickness corrugated extruded aluminum panels with flutes 12” O.C.. The panel shall be furnished with an interlocking design to provide
B. Fascia: Shall be 6” x 2” & 12”x2” x.125” Wall Tube as noted on drawings.

2.5 FINISHES

A. Columns. Satin etched Clear Anodized – Aluminum Association Specification AA-M10-C22-A31.

(204-R1) 30 Minute Velo

B. Beams: Satin etched Clear Anodized – Aluminum Association Specification AA-M10-C22-A31.
C. Deck. Satin etched Clear Anodized — Aluminum Association Specification AA-M10-C22-A31.
D. Fascia: AAMA 607.5 Kynar 500 Fluropolymer Based Painted Color: Selected by Architect

2.6 FASTENERS, CONNECTIONS, AND FITTINGS

A. All bolts, nuts, washers, and screws used in joining the members shall be stainless steel up to 1/4" diameter. Over 1/4" diameter may be Hot Dipped Galvanized. Trim pop rivets are to be aluminum stainless steel.
B. Provide concealed aluminum channel support brackets for attachment of beam-ends at masonry wall should wall attachment be designed. Coat aluminum surfaces contacting masonry with asphaltic paint of clear acrylic film.
C. Coat aluminum beam or column Surfaces contacting masonry with asphaltic paint or clear acrylic film.
D. All deck or beam end closures shall be of similar materials and welded into place.
E. Visible fasteners or components must be finished to match the surrounding surfaces.
F. Component Accessories: Shall be of similar materials as specified for prime components.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Contractor shall install column sleeves or blockouts in concrete footings to the elevations and dimensions on the approved shop drawings.
B. The canopy components and accessories are to be supplied by one source and shall be installed by the manufacturer or its representative after the masonry, concrete, and structural steel in the area is completed.
C. Carefully align columns and beams before grouting columns.
D. Fill downspout columns to discharge level with grout. Install downspout deflectors after grouting
E. Protect aluminum embedded or otherwise in contact with concrete and masonry with alkali resistant clear acrylic.

3.2 WORKMANSHIP

A. Take extreme care to prevent damage or scratching.
B. Replace damaged components prior to installation.
C. All workmanship must be top quality with meat miters and fitted joints.

3.3 CLEANING

A. Just prior to completion of project, strip protective coatings or coverings from aluminum and clean all parts.
B. Repair to new condition to replace any materials damaged during installation.

END OF SECTION

SECTION 116623

BASKETBALL EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. The Work required under this Section consists of providing sports & physical education equipment items, accessories and necessary mounting, and installation hardware.

1.2 SUBMITTALS

A. Submit in accordance with Division 1 requirements.
B. Shop drawings shall indicate the model number, type of material, gauges or thickness of metal, finishes and details of construction, and attachment. Provide layout of gymnasium showing location dimensions for each piece of equipment.
C. Submit warranties as specified herein.

1.3 PROJECT CONDITIONS

A. Loose items of equipment shall be turned over to the Owner after un-packaging or uncrating, and checking for proper type, material, size and fit of each accessory. Obtain receipt from Owner for items turned over. No claim may be made for items turned over to the Owner without obtaining a receipt.

1.4 COORDINATION

A. Coordinate with the Architect for exact locations.

1.5 WARRANTY

A. Provide manufacturer’s standard warranty on all sports & physical education equipment from the date of substantial completion as stated in this specification.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Products of the following manufacturers are acceptable, providing their products equal or exceed the quality specified. Minor differences in construction and products are recognized to exist and may be acceptable. These variations must be submitted to the architect at least 10 days prior to bid due date. Acceptance will be established by addendum.

1. Basis of Design: Performance Sports Systems, Inc., Noblesville, Indiana

2.2 GENERAL

A. Equipment shall be provided complete as per manufacturer's standard catalog description and specifications for the numbers indicated in the schedule. Equipment to be permanently installed shall be complete and ready for use.
B. Materials and finishes shall be non-corrosive in type and quality of finish noted or as a part of the manufacturer's printed description or specifications.

2.3 CEILING SUSPENDED FORWARD FOLD BACKSTOPS

A. Model No. 3107 "Single Post" ceiling suspended, forward fold, front braced backstop as manufactured by Performance Sports Systems Inc., Noblesville, Indiana.

B. "Single Post" vertical main mast assembly shall be constructed of 6-5/8'' O.D. (.120" wall ASTM A-500 Grade B) structural steel tubing with diagonal side sway braces of 2 ½"X 1 ½" X14 gauge ASTM A-513 rectangular steel tube sway braces miter cut and welded in place to a top horizontal 4" x 1 ½" x 0.18" web ASTM A-36 steel channel. Sway braces shall attach to mast above backboard for maximum rigidity. Mast and sway braces shall be welded for ceiling heights up to thirty (30) feet. Mast and sway braces shall be clamped for ceiling heights over thirty (30) feet. Goal shall be mounted directly through backboard into a heavy structural steel weldment which shall be clamped to the vertical 6-5/8'' O.D. center mast. (This direct attachment feature transfers the load on the goal directly to the mast to minimize stress to glass backboard). Goal and backboard mounting design shall conform to NCAA, NFSHSA and FIBA regulations

C. The all-welded "Single Post" design shall be suspended from custom adjustable hangers with bronze bushings designed to be offset no less than 4" behind the center line of gravity of mast, providing for proper weighting of the assembly and insuring that unit locks securely and automatically into playing position.

D. Backstop shall be supported from 3-1/2'' O.D. pipe anchored to roof framing members by means of heavy formed steel support fittings. Superstructure pipes to be reinforced with special bridging or bracing when truss centers exceed spans of fourteen (14) feet. Each attachment clamp must be capable of supporting static loads of at least 10,000 lbs. with no deflection.

E. All metal parts shall have manufactures standard Powder Coat finish in standard Black. All metal parts will be packaged adequately for protection during shipment from manufacturer.

2.4 RECTANGULAR GLASS BACKBOARDS

A. Model No. AFRG42 Aluminum Framed Rectangular Glass Backboard by Performance Sports Systems, Noblesville, IN.

B. Backboards shall be 42 inches high by 72 inches wide.

C. Backboard shall be manufactured from 1/2" tempered glass set in heavy extruded aluminum framing and cushioned by shock absorbing vinyl. Official border and target area permanently fired into glass.

D. Goal mounting structure shall be a heavy welded formed steel assembly, and directly attached to lower horizontal frame member to minimize stress on glass.

E. Backboard shall have limited lifetime warranty against defects in material and workmanship, and when used with Performance Sports System's Direct Goal Attachment feature shall be protected against shatter and breakage of glass. Board must meet NCAA, FIBA and NFSHSA specifications.

F. Provide Model No. PMCE Bolt-On Cushion Edge by Performance Sports Systems, Noblesville, IN.
   a. Available in ten (10) standard colors (color to be determined by Architect).
   b. Five (5) year warranty

2.5 BASKETBALL GOAL

A. Model No. 2000+ Breakaway Goal as manufactured by Performance Sports Systems Inc., Noblesville, IN.

B. Goal shall be fabricated from 5/8'' diameter cold drawn alloy steel round formed to an 18'' inside diameter ring. Inside of ring shall be positioned 6'' from face of backboard by heavy, formed steel hinged-type housing with removable cover to conceal mounting bolts and shock absorption mechanism of goal and to protect against finger entrapment.

C. Goal shall be designed to absorb shock loads from slam dunking or hanging on rim. Shock absorption feature shall be provided by means of a special offset hinge arrangement rim and back plate mounting housing with concealed molded rubber shock absorber.
D. Goal shall meet NCAA, FIBA and NFSHSA specification on moveable rims, which states, "A moveable basket ring shall have rebound characteristics identical to those of a non-moveable ring." Goal shall be factory set to proper flex and rebound requirements.
E. Goal shall be finished in durable, electrostatic powder coated official orange finish.
F. Goal shall be furnished complete with heavy-duty white anti-whip nylon netting and mounting hardware.

2.6 MANUAL WINCH

A. Model No. 1123 Manual Winch by Performance Sports Systems, Noblesville, IN.

B. Manual winch shall be worm gear type designed to hold backstop at any position during operation. Winch shall be heavy-duty 1000 lb. capacity with ample, oversized flanges to prevent cable from climbing drum ends. 40:1 worm gear ratio with long lasting ball bearing-type thrust bearing and maintenance-free lifetime sealed gear case. Input shaft shall not extend beyond winch housing for safety.
C. Manual winch drum shall be grooved for 1/4” 7 x 19 galvanized aircraft cable to facilitate smooth take-up of and proper spooling of cable. Drum shall be supplied with a pressure roller and torsion spring tensioning to ensure cable tracks in grooves and to prevent bunching up and wear and tear on cable, even in slack cable conditions.
D. Winch shall be provided with 2’’ x 10’’ x 30’’ yellow pine wood pad for mounting to wall. Pad shall have chamfered edges and be finished with two coats of natural clear gloss lacquer. Winch shall be located so that backstop is in full view of authorized operator at all times.
E. Winch shall have two (2) year warranty against material defects and workmanship. Any winch without this warranty does not meet these specifications and should not be considered. Winches with less than a two (2) year warranty or that require additional lubrication or maintenance shall not be considered equal.

2.8 BACKSTOP AUTO LOCK SAFETY STRAP

A. Model No. 1100 Safstop safety strap by Performance Sports Systems Inc, Noblesville, IN.
B. Provide one for each backstop.
C. Safety strap shall be inertia sensitive to automatically lock basketball backstop in position at any time (in storage or during raising or lowering cycle) due to any sudden surge of speed created by possible malfunction(s) of hoisting apparatus, winch, cable, pulleys, support fittings, etc.
D. Safety strap shall incorporate a two (2) inch wide nylon belt rated at 6,000 lbs. breaking strength. Entire unit to be tested to withstand 1,500 lb. free fall load and rated at 1000 lbs. Strap shall extend a maximum of 35'-0" and shall be automatically retracted and stored on a reel equipped with a special negator type constant force spring. Operation and locking action of strap shall be set by inertial force for immediate and positive setting, or centrifugal force to instantly lock basketball backstop before unit can gain momentum. Unit shall incorporate a fully automatic reset requiring no poles, ropes, levers or buttons.
E. Safety strap shall be furnished with universal mounting bracket to fit 3-1/2” O.D. pipe mounted either parallel or at right angles to backboard. Belt shall be supplied with an auto-lock belt clamp for ease of securing directly to basketball backstop.

2.9 MOVABLE BASKETBALL EQUIPMENT

A. Model 9408 Gared Hoopmaster Portable Basketball Backstop as manufactured by Gared Sports, Noblesville, Indiana.
B. **Frame:** The base of the frame shall be constructed of tubular steel members 2”x4”x 1/8” to form a single heavy duty unitized frame. The vertical mast and horizontal extension “boom” shall be formed from

2"x4"x3/16" with 1.5" x ¼" tubular steel braces. All pipe and tubing shall meet or exceed ASTM A513 structural steel specifications. The boom shall length shall extend 8' from the front of the unit to the face of backboard. The boom height clearance will be 9'-6" for player safety. The front of the frame shall be fitted with a positioning pin at both sides to guarantee correct placement during play. A lift mechanism will raise the unit off the wheels in the front for stabilization. Height Adjustable between 10' to 8'

C. **Ballast:** Each unit shall have a minimum ballast weight of 900lbs. permanently built into the rear of the unit.

D. **Wheels:** Each unit shall be transported on two 8" diameter caster wheels with non-marking polyurethane treads and two 6" swivel castor wheels. The rear wheels shall have minimum load rating of 1800lbs and the front wheels will have a rating of 900lbs.. The wheels shall be supported on steel roller bearings and shall have grease fittings for internal lubrication.

E. **Anchors:** Each unit shall be furnished with a floor anchoring system to lock the unit down in the back of the backstop per NCAA specifications.

F. **Padding:** Main vertical mast, horizontal boom extension and front area shall be padded with a 2" thick heavy duty polyurethane foam and covered with a 14oz. tear resistant vinyl. All padding shall be attached in a manner allowing quick replacement.

G. **Finish:** All exposed metal surfaces will be White Baked On Powder Coat finish. Custom Colors are available as an add option.

H. **Folding Cycle:** Each unit shall be raised by four heavy duty tension springs located in the base. An additional fifth spring will be required if the unit includes a shot clock mount. The maximum effort to raise or lower the unit shall be sixty pounds applied by one person at the handle provided on the rear upright. A telescoping locking bar with a safety locking pin shall be used to hold the unit in full up and full down position.

I. **Goal and Backboard Attachment:** The goal and backboard shall utilize a direct goal attachment completely eliminating the stress on the glass.

2.10 RECTANGULAR GLASS BACKBOARDS

A. Model No. AFRG42 Aluminum Framed Rectangular Glass Backboard Gared Sports Systems Inc., Noblesville, IN.

B. Backboards shall be 42 inches high by 72 inches wide.

C. Backboard shall be manufactured from 1/2" tempered glass set in heavy extruded aluminum or steel framing and cushioned by shock absorbing vinyl. Official border and target area permanently fired into glass.

D. Goal mounting structure shall be a heavy welded formed steel assembly, and directly attached to lower horizontal frame member to minimize stress on glass.

E. Backboard shall have limited lifetime warranty against defects in material and workmanship, and when used with Performance Sports System's Direct Goal Attachment feature shall be protected against shatter and breakage of glass. Board must meet NCAA, FIBA and NFSHSA specifications.

F. Provide Model No. 1330 Pro Mold Bolt-On Cushion Edge by Performance Sports Systems Inc., Noblesville, IN. Available in ten (10) standard colors (color to be determined by Architect). Five (5) year warranty.

2.11 BASKETBALL GOAL

A. Model No. 2000+ Breakaway Goal as manufactured by Performance Sports Systems Inc., Noblesville, IN.

B. Goal shall be fabricated from 5/8'' diameter cold drawn alloy steel round formed to an 18'' inside diameter ring. Inside of ring shall be positioned 6'' from face of backboard by heavy, formed steel hinged-type housing with removable cover to conceal mounting bolts and shock absorption mechanism of goal and to protect against finger entrapment.

C. Goal shall be designed to absorb shock loads from slam dunking or hanging on rim. Shock absorption feature shall be provided by means of a special offset hinge arrangement rim and back plate mounting housing with concealed molded rubber shock absorber.

D. Goal shall meet NCAA, FIBA and NFSHSA specification on moveable rims, which states, "A moveable basket ring shall have rebound characteristics identical to those of a non-moveable ring." Goal shall be factory set to proper flex and rebound requirements.
E. Goal shall be finished in durable, electrostatic powder coated official orange finish.
F. Goal shall be furnished complete with heavy-duty white anti-whip nylon netting and mounting

PART 3 - EXECUTION

3.1 PREPARATION

A. Make such arrangements as necessary to provide scaffolding to perform Work under this Section. Damage to floors, walls, equipment and the like shall be corrected at the expense of Contractor under this Section.

3.2 INSTALLATION, GENERAL

A. Install equipment in accordance with manufacturer's printed instructions, drawings, specifications and approved shop drawings. Complete equipment field assembly, where required.
B. Unless otherwise indicated, install gymnasium equipment after other finishing operations, including painting, have been completed.
C. Permanent Gymnasium Equipment: Rigid, level, plumb, square and true; anchored securely to supporting structure; positioned at locations and elevations indicated on Shop Drawings; in proper relation to adjacent construction; and aligned with court layout.
D. Portable Gymnasium Equipment: Assemble in place to verify equipment and components are complete and in proper working order. Disassemble portable gymnasium equipment after assembled configuration has been approved by Architect and store units in location indicated on Drawings.

END OF SECTION

SECTION 116629

CUSTOM BATTING CAGE SYSTEM

PART 1 - GENERAL

1.1 Summary

A. Related Documents: Conditions of the Contract, Division 1 - General Requirements and Drawings apply to work of this Section.
B. Section Includes
   1. Batting Cage system, complete with netting, anchors, guide tracks, and attachment devices
   2. Accessories necessary to complete work.
C. Related Sections:
   1. 051200 - Structural Steel Framing
   2. 133400 - Pre-Engineered Metal Buildings

1.2 Submittals

A. General: Submit in accordance with Section 013300.
B. Product Data:
   1. Submit manufacturer's descriptive literature and product specifications.
   2. Include information for factory finishes, hardware, accessories, and other required components.

1.3 Quality Assurance

A. Single Source Responsibility:
   1. To ensure quality of appearance and performance, obtain materials for systems from either a single manufacturer or from manufacturer approved by systems manufacturer.

1.4 Delivery, Storage, and Handling

A. Comply with requirements of Section 016000.
B. Protect components as necessary to prevent damage.
C. Do not leave coating residue on any surfaces.
D. Replace damaged units.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Provide products from the following:
   1. Practice Sports, Inc., 14706 Giles Road, Omaha, NE 68138; www.practicesports.com
      a. Point of Contact: Chad Shchieder, chad@practicesports.com, 913-638-6191
B. No Substitutions Permitted.

2.2 PRODUCTS

A. T2 Track and Trolley Batting Cage Kit
   1. 16 gauge track
   2. Splice connectors
   3. Steel Trolley wheels

4. Steel End stops
5. Threaded rod track connectors
6. Batting cage netting
7. Cable extension lines and snap hooks

B. Anchorage Accessories
1. Threaded Rods
2. Nuts and washers

2.3 BATTING CAGES

A. Two (2) 70' long x 14' wide x 12' high batting cages
1. Three (3) 75' long sections of 16 gauge track per cage
B. Six (6) 55' long x 12' wide x 12' high batting cages
2. Three (3) 60' long sections of 16 gauge track per cage

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions and proceed with Work in accordance with Section 014000

3.2 INSTALLATION

A. Verify location on Plans
B. Install so bottom of 16 gauge track is a minimum of 26'-0" above finish floor elevation
C. Threaded rods and threaded rod track connectors shall be attached to roof purlins at 5'-0" o.c.
D. Install batting cages as per manufacturer's instructions and recommendations.

3.3 ADJUSTING

A. Test batting cage netting to ensure smooth "curtain-like" sliding of netting from fully collapsed to fully extended positions.

END OF SECTION

SECTION 116630

NON-ELEVATED ALUMINUM ANGLE TIP-N-ROLL FRAME BLEACHERS

PART 1 - GENERAL

1. 1 SECTION INCLUDES

A. Design and fabrication of Non-Elevated angle frame bleachers

1.2 QUALITY ASSURANCE

A. Manufacturer: National Recreation Systems, Inc., P.O. Box 11487 Fort Wayne, IN
B. Manufacturer Qualifications: Manufacturer must have a minimum of ten years experience in the design and manufacture of bleachers.
C. Welders must conform to AWS standards.
D. Source Quality Control: Mill Test Certification.
E. Codes and Standards: 2012 International Building Code.

1.3 WARRANTY

A. Warranty shall guarantee bleachers to be free from defect in materials and workmanship for a period of 1 year under normal use. Warranty period shall begin on date of completion for projects installed by manufacturer, or its subcontractors, OR warranty period shall begin on date of final delivery on projects installed by others.
B. Anodized finish of plank extrusions shall be covered by a 5-year warranty against loss of structural strength or finish deterioration due to exposure to weather conditions or UV rays. Discoloration of mill finish aluminum due to galvanic reaction not covered.

1.4 PRODUCT LIABILITY INSURANCE

A. Product liability insurance is carried for the life of the product in the amount of $ 2,000,000.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

A. National Recreation Systems, Inc.
B. Kay Park Recreation Co.
C. Belson Outdoors
D. Other manufacturer with products meeting requirements

2.2 DESIGN

A. Applicable Codes: INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION
B. Design Loads:
   1. Live Loads: Uniform loading - Structure = 100 psf
      Uniform loading - Seat and Foot plank = 120 plf
   2. Sway Loads: Perpendicular to seats = 10 plf
      Parallel to seats = 24 plf

2. 3 NON-ELEVATED ANGLE FRAME BLEACHERS

A. Quantity and Size: Shall consist of SIX (6) units, 2 rows high x 21' long.
Net seating capacity per unit 28 (excluding aisles, based on 18" per seat).
B. Framework: Prefabricated aluminum angle spaced at 6' - 0" intervals joined by means of aluminum angle cross bracing.
C. Shop connections: Welded to meet AWS standards and local code requirements
D. Rise and Depth Dimensions: 6” vertical rise and 24” tread depth, Seat height is 16” above its respective tread.
E. Seats: Nominal 2” x 10” anodized aluminum with anodized end caps.
F. Treads: Nominal one (1) 2” x 10” mill finish aluminum with anodized end caps on all rows. Each unit will have high grade swivel casters with 5" non-marring wheels and non-marring foot pads.

2.4 MATERIALS / FINISHES

A. Framework
1. Aluminum: Structural fabrication with aluminum alloy 6061-T6 mill finish. Each frame shall be unit-welded, using metal inert gas method, under guidelines by the American Welding Society. After fabrication all steel is hot dipped galvanized to ASTM A-123 specifications. All crossbracing and horizontal bracing shall be aluminum angle 6061-T6 mill finish.
B. Extruded Aluminum
1. Seat planks: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II with a wall thickness nominally .078" for impact and deformation resistance.
2. Tread and Riser Planks: Aluminum alloy 6063-T6, mill finish. With a wall thickness nominally .078” for impact and deformation resistance.
C. Accessories
1. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1,AA-M10C22A31,Class II.
2. Hardware: Bolts and Nuts shall be hot dipped galvanized.
3. Hold Down Clip Assembly: Aluminum alloy 6063-T6 mill finish.
4. Joint Sleeve Assembly: Aluminum alloy 6061-T6, mill finish.

PART 3 – EXECUTION

3. 1 INSTALLATION

A. Install bleacher unit in accordance with manufacturer written instructions and shop drawings.

END OF SECTION

SECTION 116653

GYMNASIUM DIVIDERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes: Electrically operated fabric gymnasium divider.

1.2 SUBMITTALS

A. Submit in accordance with Section 013000:

1. List of proposed products and product data.
2. Loads to be transmitted to building structural members and requirements for supplementary bracing and structural support members.
3. Shop drawings showing layout, elevations, dimensions, fabrication details, method of attachment and electrical wiring diagrams.
4. Manufacturer must provide calculations and reports for tests performed by an independent testing laboratory accredited by the American Association of Laboratory Accreditation (A2LA) that clearly demonstrate compliance with minimum safety factors included in product specifications.
5. Samples of fabric for selection by Architect.
6. Manufacturer's installation and maintenance instructions.

1.3 QUALITY ASSURANCE

A. Source limitation: All components including curtain, suspension system, electric winches, and controls for divider shall be products of a single manufacturer.
B. All welding to be performed by personnel having passed Welder Qualification testing in accordance with American Welding Society (AWS) code D1.1 or higher. Manufacturer to provide certification and test results upon request.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver divider until building is enclosed and other construction within gymnasium is substantially complete.

PARTS 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Draper, Inc., 411 South Pearl Street, Spiceland, Indiana 47385-0425; 765-987-7999.
B. Manufacturers of equivalent products submitted and approved in accordance with Section 004325 - Substitution Request Form.

2.2 GYMNASIUM DIVIDER

A. Type: Electrically operated, roll-up gymnasium divider including motor, belts, controls, clamps for attachment to building structure, threaded rod supports, and other components required for complete functional installation; Roll-Up Gym Divider as manufactured by Draper, Inc.
B. Operation: Curtain rolled up and down by belts wound onto overhead rotating drive pipe operated by electrical motor.

C. Configuration: Rectangular shape with straight bottom and extending across room as indicated on Drawings.
   1. Maximum dimension of stored divider: 2 feet from bottom of structural support to bottom of rolled curtain.
   2. Minimum required clearance between vertical curtain edges and adjacent fixed objects: 6 inches.
D. Operating mechanism: Drive pipe winch powered with 3/4 HP, 110VAC, 60-cycle, single-phase, reversible capacitor, C-Face motor with thermal overload protection. Winch assembly shall carry a five-year warranty. Provide with load holding worm gear reduction and integral limit switches to control curtain travel. Drive pipe shall rotate in pipe support assemblies spaced at approximately 9 feet.
E. Attachment: Attach to structural support with beam clamps, hanger brackets, and 1/2 inch diameter threaded rods. Attachment clamps designed to be capable of supporting a minimum of 5,000 lbs. each and provided in sufficient number to provide a combined minimum 45:1 attachment point safety factor.
F. Hoist belts: 5 inches wide white polyester webbing attached to drive pipe, passing under bottom batten, and terminating at top batten. Space belts at approximately 15 feet.
G. Bottom roller: 4 inches diameter steel pipe with aluminum strip for attachment of curtain.

2.3 CURTAIN

A. Full height curtain: Vinyl coated polyester mesh.
   1. Weight: 9 ounces per SY.
   2. Resistant to rot, mildew, and ultraviolet light.
   3. Flammability: Rated self-extinguishing in accordance with California State Fire Marshall Title 19.
   4. Color: Selected by Architect from manufacturer's standard range.
B. Seams: Vertical and electronically welded with 1 inch full contact weld.
C. Outer edge hems: Turned with double welds.
D. Top edge: Solid fabric in triple thickness and double welded to mesh to form 6 inch wide pocket for top pipe batten.
E. Bottom edge cut square for attachment to roller pipe with aluminum stop strip.

2.4 CURTAIN SAFETY DEVICE

A. Provide Draper Model 504301 Curtain Lok safety device. Curtain Lok to be directly speed sensitive to automatically lock divider curtain in position at any time during storage or operation. In the event of an over-speed situation greater than 1.5 feet per second caused by malfunction of the hoisting apparatus, whether sudden or gradual, device will immediately activate. Curtain Lok work regardless of direction of rotation and automatically resets when load is reversed or removed.

2.5 CONTROLS

A. Provide key lock, 3-position, momentary contact wall control switch to lower, raise, and stop gymnasium divider. Provide with switch box and plastic cover plate.
B. Devices are controlled via 120V relay/controller panels that may be mounted at remote location(s.) Each relay panel includes 18 relays configured in eight directional control pairs and two on-off individual relays. As many as (16) Relay Boxes may be networked to allow up to (128) directional gym equipment devices and up to (32) on-off auxiliary items to be operated. Relay Boxes shall distribute power to the appropriate devices as a result of commands entered at the Touch Pad. Relay Boxes shall be dual powered and sized to accept two 120 volt, 30 amp, single-phase circuits.
C. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL: All conduits, wires (including low voltage), touch pad mounting box and programming.

PART 3 - EXECUTION

3.1 PREPARATION

A. Coordinate support of gymnasium divider with roof structure to ensure proper distribution of loads and

adequacy of attachment points. Ensure that building structure has been designed for loads of specific gymnasium divider to be provided. Provide additional structural framing members as required.

B. Coordinate configuration, size, and installation of gymnasium divider with height, slope, and type of building structure and lighting fixtures, mechanical equipment, ductwork, fire-suppression system, bleachers, athletic equipment, and other potential obstructions.
C. Field verify dimensions prior to fabrication.
D. Coordinate electrical requirements for motorized operating mechanism to ensure proper power source, conduit, wiring, and boxes for keyed switches. Prior to installation, verify type and location of power supply.

3.2 INSTALLATION

A. Install in accordance with manufacturer's written instructions and shop drawings.
B. Install even and level with curtain hanging 24 inches above floor in down position.
C. Install control switch such that operator has view of complete gymnasium divider during lowering and raising.
D. Adjust limit switches of electric winch to ensure accurate position in both stored and lowered positions.

3.3 TESTING AND DEMONSTRATION

A. Operate divider curtains to ensure proper lifting and lowering. Adjust as required to ensure smooth operation and accurate positioning.
B. Demonstrate to Owner's designated representatives complete operation and required maintenance.

END OF SECTION

SECTION 13 34 19

METAL BUILDING SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

A. Section includes pre-engineered, shop fabricated structural steel building frame.

1.2 REFERENCES

A. American Institute of Steel Construction:
1. AISC S335 - Specification for Structural Steel Buildings Allowable Stress Design, and Plastic Design.
2. AISC S342L - Load and Resistance Factor Design Specification for Structural Steel Buildings.
3. AISC S344L - Metric Load and Resistance Factor Design Specification for Structural Steel Buildings.

B. ASTM International:
1. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
2. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
3. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
4. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
5. ASTM A325 - Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
6. ASTM A490 - Standard Specification for Heat-Treated Steel Structural Bolts, 150 ksi Minimum Tensile Strength.
7. ASTM A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
8. ASTM A501 - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
9. ASTM A529/A529M - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality.
10. ASTM A572/A572M - Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
11. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
12. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
13. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.

14. ASTM C991 - Standard Specification for Flexible Glass Fiber Insulation for Pre-Engineered Metal Buildings.
15. ASTM C1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
16. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
17. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.

C. American Welding Society:
1. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination.
2. AWS D1.1 - Structural Welding Code - Steel.

D. Metal Building Manufacturers Association:
1. MBMA - Low Rise Building Systems Manual.

E. National Fire Protection Association:
1. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials.

F. SSPC: The Society for Protective Coatings:
1. SSPC - Steel Structures Painting Manual.
2. SSPC Paint 20 - Zinc-Rich Primers (Type I - Inorganic and Type II - Organic).

G. Underwriters Laboratories Inc.:
1. UL - Building Materials Directory.
2. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.3 SYSTEM DESCRIPTION

A. Single span rigid frame.

1.4 DESIGN REQUIREMENTS

A. Provide drainage to exterior for water entering or condensation occurring within wall or roof system.

B. Size and fabricate wall and roof systems free of distortion or defects detrimental to appearance or performance.

1.5 PERFORMANCE REQUIREMENTS

A. Conform to applicable codes for submission of design calculations, reviewed shop and erection drawings, required for acquiring permits.

B. Cooperate with regulatory agency or authority and provide data as requested authority having jurisdiction.

1.6 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal procedures.

B. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections, attachments, openings, cambers, loads, and reactions; wall and roof system dimensions, panel layout, general construction details, anchorages and method of anchorage, method or installation; framing anchor bolt settings, sizes, and locations from datum, and foundation loads; indicate welded connections with AWS A2.4 welding symbols; indicate net weld lengths; provide professional seal and signature.

C. Erection Drawings: Indicate members by label, assembly sequence, and temporary erection bracing.

PART 2 PRODUCTS

2.1 FABRICATION - FRAMING

A. Fabricate members in accordance with AISC Specification for plate, bar, tube, or rolled structural shapes.

B. Provide framing for door window louver skylight, ventilator openings.

PART 3 EXECUTION

3.1 ERECTION - FRAMING

A. Erect framing in accordance with AISC Specification.

B. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation of permanent bracing.

C. Set column base plates with non-shrink grout to achieve full plate bearing.

D. Do not field cut or alter structural members without approval of Architect/Engineer.

E. After erection, prime welds, abrasions, and surfaces not shop primed.

3.2 ERECTION TOLERANCES

A. Framing Members: 1/4 inch from level;1/8 inch from plumb.

END OF SECTION

SECTION 13852 - DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fire-alarm control unit.
2. Manual fire-alarm boxes.
3. System smoke detectors.
4. Nonsystem smoke detectors.
5. Heat detectors.
6. Notification appliances.
7. Magnetic door holders.
8. Addressable interface device.
9. Digital alarm communicator transmitter.

1.3 DEFINITIONS

A. LED: Light-emitting diode.

B. NICET: National Institute for Certification in Engineering Technologies.

1.4 SYSTEM DESCRIPTION

A. Noncoded addressable system, with automatic sensitivity control of certain smoke detectors and multiplexed signal transmission, dedicated to fire-alarm service only.

1.5 SUBMITTALS

A. General Submittal Requirements:

1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect.
2. Shop Drawings shall be prepared by persons with the following qualifications:

a. Trained and certified by manufacturer in fire-alarm system design.
b. NICET-certified fire-alarm technician, Level III minimum.
c. Licensed or certified by authorities having jurisdiction.

B. Product Data: For each type of product indicated.

C. Shop Drawings: For fire-alarm system. Include plans, elevations, sections, details, and attachments to other work.

1. Comply with recommendations in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72.
2. Include voltage drop calculations for notification appliance circuits.
3. Include battery-size calculations.
4. Include performance parameters and installation details for each detector, verifying that each detector is listed for complete range of air velocity, temperature, and humidity possible when air-handling system is operating.
5. Include plans, sections, and elevations of heating, ventilating, and air-conditioning ducts, drawn to scale and coordinating installation of duct smoke detectors and access to them. Show critical dimensions that relate to placement and support of sampling tubes, detector housing, and remote status and alarm indicators. Locate detectors according to manufacturer's written recommendations.
6. Include voice/alarm signaling-service equipment rack or console layout, grounding schematic, amplifier power calculation, and single-line connection diagram.
7. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits.

D. Delegated-Design Submittal: For smoke and heat detectors indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1. Drawings showing the location of each smoke and heat detector, ratings of each, and installation details as needed to comply with listing conditions of the detector.
2. Design Calculations: Calculate requirements for selecting the spacing and sensitivity of detection, complying with NFPA 72.

E. Qualification Data: For qualified Installer.

F. Field quality-control reports.

G. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 1 Section "Operation and Maintenance Data," deliver copies to authorities having jurisdiction and include the following:

1. Comply with the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
2. Provide "Record of Completion Documents" according to NFPA 72 article "Permanent Records" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter.
3. Record copy of site-specific software.
4. Provide "Maintenance, Inspection and Testing Records" according to NFPA 72 article of the same name and include the following:

    a. Frequency of testing of installed components.
    b. Frequency of inspection of installed components.
    c. Requirements and recommendations related to results of maintenance.
    d. Manufacturer's user training manuals.

5. Manufacturer's required maintenance related to system warranty requirements.
6. Abbreviated operating instructions for mounting at fire-alarm control unit.
7. Copy of NFPA 25.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Installation shall be by personnel certified by NICET as fire-alarm Level III technician.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

C. NFPA Certification: Obtain certification according to NFPA 72 by an NRTL.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. NOTIFIER; a Honeywell company.
2. Siemens Building Technologies, Inc.; Fire Safety Division.
3. Silent Knight; a Honeywell company.
4. SimplexGrinnell LP; a Tyco International company.

2.2 SYSTEMS OPERATIONAL DESCRIPTION

A. Fire-alarm signal initiation shall be by one or more of the following devices:

1. Manual stations.
2. Heat detectors.
3. Smoke detectors.
4. Duct smoke detectors.
5. Verified automatic alarm operation of smoke detectors.
6. Automatic sprinkler system water flow.
7. Heat detectors in elevator shaft and pit.
8. Fire-extinguishing system operation.
9. Fire standpipe system.

B. Fire-alarm signal shall initiate the following actions:

1. Continuously operate alarm notification appliances.
2. Identify alarm at fire-alarm control unit.
3. Transmit an alarm signal to the remote alarm receiving station.
4. Unlock electric door locks in designated egress paths.
5. Release fire and smoke doors held open by magnetic door holders.
6. Activate voice/alarm communication system.
7. Switch heating, ventilating, and air-conditioning equipment controls to fire-alarm mode.
8. Activate smoke-control system (smoke management) at firefighter smoke-control system panel.
9. Activate stairwell and elevator-shaft pressurization systems.
10. Close smoke dampers in air ducts of designated air-conditioning duct systems.
11. Recall elevators to primary or alternate recall floors.
12. Activate emergency lighting control.
13. Activate emergency shutoffs for gas and fuel supplies.
14. Record events in the system memory.

C. Supervisory signal initiation shall be by one or more of the following devices and actions:

1. Valve supervisory switch.
2. Low-air-pressure switch of a dry-pipe sprinkler system.
3. Elevator shunt-trip supervision.

D. System trouble signal initiation shall be by one or more of the following devices and actions:

1. Open circuits, shorts, and grounds in designated circuits.
2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.
3. Loss of primary power at fire-alarm control unit.
4. Ground or a single break in fire-alarm control unit internal circuits.
5. Abnormal ac voltage at fire-alarm control unit.
6. Break in standby battery circuitry.
7. Failure of battery charging.
8. Abnormal position of any switch at fire-alarm control unit or annunciator.
9. Fire-pump power failure, including a dead-phase or phase-reversal condition.
10. Low-air-pressure switch operation on a dry-pipe or preaction sprinkler system.

E. System Trouble and Supervisory Signal Actions: Initiate notification appliance and annunciate at fire-alarm control unit. Record the event on system printer.

2.3 FIRE-ALARM CONTROL UNIT

A. General Requirements for Fire-Alarm Control Unit:

1. Field-programmable, microprocessor-based, modular, power-limited design with electronic modules, complying with UL 864 and listed and labeled by an NRTL.

a. System software and programs shall be held in flash electrically erasable programmable read-only memory (EEPROM), retaining the information through failure of primary and secondary power supplies.
b. Include a real-time clock for time annotation of events on the event recorder and printer.

2. Addressable initiation devices that communicate device identity and status.

a. Smoke sensors shall additionally communicate sensitivity setting and allow for adjustment of sensitivity at fire-alarm control unit.
b. Temperature sensors shall additionally test for and communicate the sensitivity range of the device.

3. Addressable control circuits for operation of mechanical equipment.

B. Alphanumeric Display and System Controls: Arranged for interface between human operator at fire-alarm control unit and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu.

1. Annunciator and Display: Liquid-crystal type, 2 line(s) of 40 characters, minimum.
2. Keypad: Arranged to permit entry and execution of programming, display, and control commands and to indicate control commands to be entered into the system for control of smoke-detector sensitivity and other parameters.

C. Circuits:

1. Initiating Device, Notification Appliance, and Signaling Line Circuits: NFPA 72, Class A.

    a. Initiating Device Circuits: Style D.
    b. Notification Appliance Circuits: Style Z.
    c. Signaling Line Circuits: Style 2.
    d. Install no more than 50 addressable devices on each signaling line circuit.

2. Initiating Device, Notification Appliance, and Signaling Line Circuits: NFPA 72, Class B.

    a. Initiating Device Circuits: Style A.
    b. Notification Appliance Circuits: Style W.
    c. Signaling Line Circuits: Style 1.
    d. Install no more than 50 addressable devices on each signaling line circuit.

D. Door Controls: Door hold-open devices that are controlled by smoke detectors at doors in smoke barrier walls shall be connected to fire-alarm system.

E. Remote Smoke-Detector Sensitivity Adjustment: Controls shall select specific addressable smoke detectors for adjustment, display their current status and sensitivity settings, and change those settings. Allow controls to be used to program repetitive, time-scheduled, and automated changes in sensitivity of specific detector groups. Record sensitivity adjustments and sensitivity-adjustment schedule changes in system memory, and print out the final adjusted values on system printer.

F. Transmission to Remote Alarm Receiving Station: Automatically transmit alarm, supervisory, and trouble signals to a remote alarm station.

G. Voice/Alarm Signaling Service: Central emergency communication system with redundant microphones, preamplifiers, amplifiers, and tone generators provided in a separate cabinet located in the fire command center.

1. Indicated number of alarm channels for automatic, simultaneous transmission of different announcements to different zones or for manual transmission of announcements by use of the central-control microphone. Amplifiers shall comply with UL 1711 and be listed by an NRTL.

    a. Allow the application of and evacuation signal to indicated number of zones and, at same time, allow voice paging to the other zones selectively or in any combination.
    b. Programmable tone and message sequence selection.
    c. Standard digitally recorded messages for "Evacuation" and "All Clear."
    d. Generate tones to be sequenced with audio messages of type recommended by NFPA 72 and that are compatible with tone patterns of notification appliance circuits of fire-alarm control unit.

2. Status Annunciator: Indicate the status of various voice/alarm speaker zones and the status of firefighters' two-way telephone communication zones.
3. Preamplifiers, amplifiers, and tone generators shall automatically transfer to backup units, on primary equipment failure.

H. Primary Power: 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signals, supervisory signals shall be powered by 24-V dc source.

1. Alarm current draw of entire fire-alarm system shall not exceed 80 percent of the power-supply module rating.

I. Secondary Power: 24-V dc supply system with batteries, automatic battery charger, and automatic transfer switch.

1. Batteries: Sealed lead calcium.

J. Instructions: Computer printout or typewritten instruction card mounted behind a plastic or glass cover in a stainless-steel or aluminum frame. Include interpretation and describe appropriate response for displays and signals. Briefly describe the functional operation of the system under normal, alarm, and trouble conditions.

2.4 MANUAL FIRE-ALARM BOXES

A. General Requirements for Manual Fire-Alarm Boxes: Comply with UL 38. Boxes shall be finished in red with molded, raised-letter operating instructions in contrasting color; shall show visible indication of operation; and shall be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box.
1. Weatherproof Protective Shield: Factory-fabricated clear plastic enclosure hinged at the top to permit lifting for access to initiate an alarm.

2.5 SYSTEM SMOKE DETECTORS

A. General Requirements for System Smoke Detectors:

1. Comply with UL 268; operating at 24-V dc, nominal.
2. Detectors shall be four-wire type.
3. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.
4. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
5. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.

B. Photoelectric Smoke Detectors:

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

a. Primary status.
b. Device type.
c. Present average value.
d. Present sensitivity selected.
e. Sensor range (normal, dirty, etc.).

C. Duct Smoke Detectors: Photoelectric type complying with UL 268A.

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.

2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

   a. Primary status.
   b. Device type.
   c. Present average value.
   d. Present sensitivity selected.
   e. Sensor range (normal, dirty, etc.).

3. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector.
4. Each sensor shall have multiple levels of detection sensitivity.
5. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
6. Relay Fan Shutdown: Rated to interrupt fan motor-control circuit.

2.6 HEAT DETECTORS

A. General Requirements for Heat Detectors: Comply with UL 521.

B. Heat Detector, Combination Type: Actuated by either a fixed temperature of 135 deg F (57 deg C) or a rate of rise that exceeds 15 deg F (8 deg C) per minute unless otherwise indicated.

1. Mounting: Adapter plate for outlet box mounting.
2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

3. Detector Cable: Rated detection temperature 155 deg F (68 deg C). NRTL listed for "regular" service and a standard environment. Cable includes two steel actuator wires twisted together with spring pressure, wrapped with protective tape, and finished with PVC outer sheath. Each actuator wire is insulated with heat-sensitive material that reacts with heat to allow the cable twist pressure to short- circuit wires at the location of elevated temperature.

2.7 NOTIFICATION APPLIANCES

A. General Requirements for Notification Appliances: Individually addressed, connected to a signaling line circuit, equipped for mounting as indicated and with screw terminals for system connections.

B. Chimes, Low-Level Output: Vibrating type, 75-dBA minimum rated output.

C. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Comply with UL 464. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet (3 m) from the horn, using the coded signal prescribed in UL 464 test protocol.

D. Visible Notification Appliances: Xenon strobe lights comply with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch- (25-mm-) high letters on the lens.

1. Rated Light Output:

a. 75 cd.
b. 15/30/75/110 cd, selectable in the field.

2. Mounting: Wall mounted unless otherwise indicated.
3. For units with guards to prevent physical damage, light output ratings shall be determined with guards in place.
4. Flashing shall be in a temporal pattern, synchronized with other units.
5. Strobe Leads: Factory connected to screw terminals.
6. Mounting Faceplate: Factory finished, red.

E. Voice/Tone Notification Appliances:

1. Appliances shall comply with UL 1480 and shall be listed and labeled by an NRTL.
2. High-Range Units: Rated 2 to 15 W.
3. Low-Range Units: Rated 1 to 2 W.

2.8 MAGNETIC DOOR HOLDERS

A. Description: Units are equipped for wall or floor mounting as indicated and are complete with matching doorplate.

1. Electromagnet: Requires no more than 3 W to develop 25-lbf (111-N) holding force.
2. Wall-Mounted Units: Flush mounted unless otherwise indicated.
3. Rating: 24-V ac or dc.
4. Rating: 120-V ac.

B. Material and Finish: Match door hardware.

2.9 ADDRESSABLE INTERFACE DEVICE

A. Description: Microelectronic monitor module, NRTL listed for use in providing a system address for alarm-initiating devices for wired applications with normally open contacts.

B. Integral Relay: Capable of providing a direct signal to elevator controller to initiate elevator recall.

2.10 DIGITAL ALARM COMMUNICATOR TRANSMITTER

A. Digital alarm communicator transmitter shall be acceptable to the remote central station and shall comply with UL 632 and be listed and labeled by an NRTL.

B. Functional Performance: Unit shall receive an alarm, supervisory, or trouble signal from fire-alarm control unit and automatically capture one telephone line(s) and dial a preset number for a remote central station. When contact is made with central station(s), signals shall be transmitted. If service on line is interrupted for longer than 45 seconds, transmitter shall initiate a local trouble signal and transmit the signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. Transmitter shall automatically report telephone service restoration to the central station. If service is lost on both telephone lines, transmitter shall initiate the local trouble signal.

C. Local functions and display at the digital alarm communicator transmitter shall include the following:

1. Verification that both telephone lines are available.
2. Programming device.
3. LED display.
4. Manual test report function and manual transmission clear indication.
5. Communications failure with the central station or fire-alarm control unit.

D. Digital data transmission shall include the following:

1. Address of the alarm-initiating device.
2. Address of the supervisory signal.
3. Address of the trouble-initiating device.
4. Loss of ac supply or loss of power.
5. Low battery.
6. Abnormal test signal.
7. Communication bus failure.

E. Self-Test: Conducted automatically every 24 hours with report transmitted to central station.

2.11 DEVICE GUARDS

A. Description: Welded wire mesh of size and shape for the manual station, smoke detector, gong, or other device requiring protection.

1. Factory fabricated and furnished by manufacturer of device.
2. Finish: Paint of color to match the protected device.

PART 3 - EXECUTION

3.1 EQUIPMENT INSTALLATION

A. Comply with NFPA 72 for installation of fire-alarm equipment.

B. Install wall-mounted equipment, with tops of cabinets not more than 72 inches (1830 mm) above the finished floor.

C. Smoke- or Heat-Detector Spacing:

1. Comply with NFPA 72, "Smoke-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for smoke-detector spacing.
2. Comply with NFPA 72, "Heat-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for heat-detector spacing.
3. Smooth ceiling spacing shall not exceed 30 feet (9 m).
4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to Appendix Ain NFPA 72.
5. HVAC: Locate detectors not closer than 3 feet (1 m) from air-supply diffuser or return-air opening.
6. Lighting Fixtures: Locate detectors not closer than 12 inches (300 mm) from any part of a lighting fixture.

D. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct.

E. Heat Detectors in Elevator Shafts: Coordinate temperature rating and location with sprinkler rating and location.

F. Single-Station Smoke Detectors: Where more than one smoke alarm is installed within a dwelling or suite, they shall be connected so that the operation of any smoke alarm causes the alarm in all smoke alarms to sound.

G. Remote Status and Alarm Indicators: Install near each smoke detector and each sprinkler water-flow switch and valve-tamper switch that is not readily visible from normal viewing position.

H. Audible Alarm-Indicating Devices: Install not less than 6 inches (150 mm) below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille.

I. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches (150 mm) below the ceiling.

J. Device Location-Indicating Lights: Locate in public space near the device they monitor.

K. Fire-Alarm Control Unit: Surface mounted, with tops of cabinets not more than 72 inches (1830 mm) above the finished floor.

L. Annunciator: Install with top of panel not more than 72 inches (1830 mm) above the finished floor.

3.2 CONNECTIONS

A. For fire-protection systems related to doors in fire-rated walls and partitions and to doors in smoke partitions, comply with requirements in Division 8 Section "Door Hardware." Connect hardware and devices to fire-alarm system.

1. Verify that hardware and devices are NRTL listed for use with fire-alarm system in this Section before making connections.

B. Make addressable connections with a supervised interface device to the following devices and systems. Install the interface device less than 3 feet (1 m) from the device controlled. Make an addressable confirmation connection when such feedback is available at the device or system being controlled.

1. Alarm-initiating connection to smoke-control system (smoke management) at firefighter smoke-control system panel.
2. Alarm-initiating connection to stairwell and elevator-shaft pressurization systems.
3. Smoke dampers in air ducts of designated air-conditioning duct systems.
4. Alarm-initiating connection to elevator recall system and components.
5. Alarm-initiating connection to activate emergency lighting control.
6. Alarm-initiating connection to activate emergency shutoffs for gas and fuel supplies.
7. Supervisory connections at valve supervisory switches.
8. Supervisory connections at low-air-pressure switch of each dry-pipe sprinkler system.
9. Supervisory connections at elevator shunt trip breaker.

3.3 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Division 16 Section "Electrical Identification."

B. Install framed instructions in a location visible from fire-alarm control unit.

3.4 GROUNDING

A. Ground fire-alarm control unit and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.

3.5 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

B. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

C. Tests and Inspections:

1. Visual Inspection: Conduct visual inspection prior to testing.

a. Inspection shall be based on completed Record Drawings and system documentation that is required by NFPA 72 in its "Completion Documents, Preparation" Table in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter.
b. Comply with "Visual Inspection Frequencies" Table in the "Inspection" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.

2. System Testing: Comply with "Test Methods" Table in the "Testing" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.
4. Test audible appliances for the private operating mode according to manufacturer's written instructions.
5. Test visible appliances for the public operating mode according to manufacturer's written instructions.
6. Factory-authorized service representative shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.

D. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.

E. Fire-alarm system will be considered defective if it does not pass tests and inspections.

F. Prepare test and inspection reports.

G. Maintenance Test and Inspection: Perform tests and inspections listed for weekly, monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections.

H. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

END OF SECTION 13852

SECTION 15010 - MECHANICAL GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 GENERAL

A. Drawings and general provisions of contract, including General and Supplementary Conditions, and Division 1 Specification Section apply to this and other sections of Division 15.

B. Before submitting his proposal, each bidder shall examine all plans and specifications relating to the work, visit the site(s) of the proposed project, and become fully informed of the extent and character of the work required.

1.2 REFERENCE STANDARDS

A. Perform all Division 15 work in strict accordance with the Laws and Regulations of the State of Texas, and County and City codes/ordinances having jurisdiction over the project.

1.3 COORDINATION

A. Coordinate work under this Division to avoid conflicts and to attain satisfactory and complementary systems.

B. Coordinate work under this Division with work under other Divisions to avoid conflicts and to allow for adequate installation, maintenance, and operating space. Obtain the Architect's approval for penetrations of other parts of the Work prior to affecting them.

C. Prepare coordination drawings in accordance with Division 1 to a scale of ¼"=1'-0" or larger; detailing major elements, components, and systems of mechanical equipment and materials in relationship with other systems, installations, and building components. Indicate locations where space is limited for installation and access and where sequencing and coordination of installations are of importance to the efficient flow if the work.

1.4 DEFINITIONS

Specific meanings used in Division 15 (variant forms are inferred):

A. Work: This project, or the reference part.

B. Provide:

1. Furnish and install, complete with necessary appurtenances.
2. “Provide” is implied throughout this Division unless language is specific.

C. Required: Required by the contract Documents.

D. Necessary: Necessary in order to obtain a finished system in satisfactory operating condition, and meeting all requirements.

E. Furnish: Procure and deliver, ready for installation, necessary and/or required.

F. Install: Receive, place securely, ready for connection to work specified elsewhere, and bring into satisfactory operating condition, as necessary and/or required.

G. Connect: Connect properly to mechanical work. This includes non-physical “connections” such as indirect waste drains.

H. Architect, Project Architect or Architect/Engineer Team.

1.5 SCOPE OF WORK

A. The work under this Division includes providing complete mechanical systems for the project.

B. All items of labor, material or equipment not required in detail by the specifications or plans, but incidental to, or necessary for the complete installation and proper operation of all phases of work described herein, or reasonably implied in connection therewith, shall be furnished as if called for in detail by the Contract Documents.

1.6 WORKMANSHIP

A. All labor shall be performed in a workmanlike manner by mechanics skilled in their particular trades. All installations shall be complete in both effectiveness and appearance whether finally enclosed or left exposed. The architect reserves the right to direct the removal or replacement of any item which in his opinion shall not present a reasonable neat or workmanlike appearance, providing that same can be properly installed in an orderly way.

1.7 MANUFACTURER’S INSTRUCTIONS

A. All equipment and devices shall be installed in accordance with the plans and specifications, manufacturer’s instructions and applicable codes. Contractor

shall obtain written recommendations of installation and start-up instructions from material vendors and comply, unless otherwise required. Bring discrepancies between these instructions and project requirements to the attention of the Architect, and resolve prior to construction. Provide signed inspection report by manufacturer's representative at system start-up to verify all is in compliant for product warranty.

1.8 WARRANTY

A. The contractor shall warranty his work against defective materials and workmanship for a period of 1-year from date of acceptance of the job.

1.9 TRAINING

A. Upon completion of the work and at a time designated by the Owner's representative, provide a formal training session for the Owner's operating personnel to include location, operation, and maintenance of all mechanical equipment and systems.

1.10 PERMITS AND FEES

A. Permits: Obtain special permits necessary for this portion of the Work.

B. Fees: Pay any fees associated with permits, required inspections, and permanent utility connections to this part of the work.

1.11 LICENSES

A. Work under this Division shall be performed by organizations and individuals holding a current license to perform such type of work by the authority having jurisdiction. "License" in this sense means any process, regardless of its appellation, which is normally mandated by the authority in order to perform such type of work within its jurisdiction. The stipulation of this paragraph applies even if the work is located physically on property owned or controlled by a higher authority. E.G., to work within the city limits of Corpus Christi, Texas, on a Federal project, State of Texas and City of Corpus Christi licenses which would be mandated to work on a private project shall be required even though the City and State may have no jurisdiction over the higher government.

B. In the event that the licensed organization loses its license or is unable to obtain one, or the licensed individual performing the work becomes unlicensed or deports the organization, notify Architect immediately in writing.

1.12 UTILITY COORDINATION

A. Permanent: Provide all ancillary work necessary to obtain utility connections. Pay connection fees. Arrange for connection in a timely manner. Coordinate time and arrangement of other work with the serving utility, and comply with utility standards.

B. Temporary: Refer to Division 1.

C. General: The contractor shall verify to his own satisfaction the location, elevation and availability of all utilities and services required, and shall adequately inform himself as to their relation to the work. The contractor shall also verify location, conduct all necessary tests, inspections, coordinate with owner's representatives and utilities, and check or existing underground utilities and lines before ditching. Repair of any cut or damaged lines or utilities shall be the sole responsibility of the contractor.

1.13 LISTING AND LABELING

Materials required to be listed shall be listed and labeled for the particular service if a listing is available. Obtain and comply with the terms of listings. Listed material include.

A. NSF: Potable water and sanitary waste systems components.

B. UL: Electrical materials.

C. AMCA: Air moving devices and related accessory items.

D. ARI: HVAC equipment.

E. FM or UL: Hazardous fluid and fire protection system components.

F. FIA, FM or AGA: Fuel gas system components.

1.14 MATERIALS AND EQUIPMENT

A. All materials and equipment shall be new. Products shall be currently manufactured.

B. All materials and equipment shall be clearly marked, stamped or labeled for identification. Do not obscure nameplates. Where manufactures nameplates do not meet the requirements of the mechanical identification specification provide nameplates in accordance with the specification.

C. All products of similar type shall be provided by a single manufacturer throughout the project.

1.15 SUBMITTALS AND REVIEW

A. Contractor shall furnish to the Architect, within a reasonable time after award of contract, and prior to commencing any work, complete brochures in quadruplicate (plus quantity required by the Contractor) of all materials and equipment which the contractor proposes to furnish on the project. Data shall include descriptive literature, performance data, diagrams, capacity information, etc., to substantiate that proposed equipment will meet all of the requirements of the plans and specifications.

B. All data must be checked and any required changes noted thereon by the contractor, signed and dated prior to furnishing same to the Architect for approval. Contractor's attention is directed that it is mandatory that he thoroughly review data prior to furnishing same to assure that equipment is in accordance with plans and specifications and to assure prompt return of the data.

C. Deviations: Specifically call to the attention of the Architect every proposed deviation from the Contract Document requirements. Failure to identify deviations as such constitutes a representation that all requirements are not met.

D. Review: Review of submittals shall not be constructed as releasing the Contractor from responsibility, but rather as a means to facilitate coordination of the work and the proper selection and installation of the products. All work shall be subject to final acceptance by the Architect at the completion of the project.

E. If above information is not provided complete as specified above and within the allocated time, all equipment shall be furnished exactly as specified without any substitutions.

1.16 SUBSTITUTIONS

A. Refer to the Conditions of the Contract.

B. Where one vendor is indicated for a product, it is to establish a level of quality and performance; provide a product equal to that product in all respects from a vendor of equivalent performance.

C. Where multiple vendors are indicated for a product, any of those vendors meeting the requirements may be submitted.

D. Some product specifications in this Division are of the Acceptable Manufacturer type. Vendors listed as Acceptable Manufacturers are acceptable as vendors. However, the product submitted is subject to review as being fully equivalent in detail to the basis of design.

E. Where multiple vendors are listed with product model numbers, each model and vendor is acceptable, provide all requirements are met. Model numbers are indicated to the extent believe necessary to identify a type and are not necessary completely.

F. The architectural/engineering team has designed the facility using requirements of the Basis of Design equipment. Any substitutions from the basis of design, which will require additional A/E design and/or coordination, shall include the cost of necessary redesign by professionals licensed in the respective disciplines and the approval of the professional of record.

1.17 DRAWINGS AND SPECIFICATIONS

A. These specifications are accompanied by Drawings. The Drawings and Specifications are complementary each to the other, and what is called for by one shall be as binding as if called for by both.

B. The Drawings are generally diagrammatic. Lay out work at the site to conform to existing conditions; architectural, structural, mechanical, and electrical conditions; to avoid all obstructions; and to conform to details of installation as

required. Provide an integrated satisfactorily operating installation. All necessary offsets in piping, fittings, duct, etc., required to avoid interferences between piping, equipment, architectural, and structural elements shall be provided by the Contractor. Provide all necessary routing and offsets to avoid conflict.

C. Verify and arrange that sufficient space is provided for the installation of proposed products and that adequate access will exist for service and maintenance of equipment. For this work, adequate access shall be defined as meaning that service personnel can access and maintain a piece of equipment without having to alter permanent construction. Further, for equipment located above ceilings, access shall be available within 3 feet pf ceiling opening or lay-in ceiling.

1.18 COMPLEMENTARY DOCUMENTS

A. Contract documents are complementary; requirements are not necessarily repetitively stated at each possible subject; consider that a requirement applies wherever applicable.

B. In the event of conflicting requirements in different parts of the Documents, the more expensive shall be presumed to apply, unless the Architect clarifies the requirement in a less expensive manner and waives the more expensive requirement in writing.

Since codes and standards are incorporated by reference, a particular conflict may appear in that a reference may use language that implies that a particular requirement in the Construction Documents is waived under the reference. This is not the case, unless specifically so clarified by the Architect. Generally, the specific Drawings and Specifications take precedence over waivers in multi-purpose reference documents.

C. Because of licensure and workmanship requirements, persons performing the work are presumed to be familiar with applicable codes, ordinances, laws, regulations and standards. Therefore, details of materials, methods, arrangements and size contained in such publications are not necessarily

replicated in the Contract Documents. This in no way deletes the requirement of the Contractor to comply. In the event of an apparent conflict between such publications and the Contract Documents, request clarification from the Architect prior to construction.

1.19 PROTECTION

A. All work, equipment and materials shall be protected at all times to prevent damage or breakage either in transit, storage, installation or testing. All openings shall be closed with caps or plugs during installation. All materials and equipment shall be covered and protected against dirt, water, chemicals or mechanical injury.

1.20 CUTTING AND PATCHING

A. All subcontractors shall notify the General Contractor sufficiently ahead of construction of any floor, walls, ceiling, roof, etc., of any openings that will be required for his work. All necessary cutting of walls, floors, partitions, ceilings, etc., as required for the proper installation of the work under this Contract shall be done at the Subcontractor's expense in a neat and workmanlike manner.

1.21 DEMOLITION

A. It shall be the responsibility of the contractor to see that all demolition and remodeling work involving his trade is accomplished in a manner and completeness to provide the appearance of new construction work.

B. Coordinate with other divisions before commencing work.

C. Abandoned air conditioning units shall be removed and disposed of off site in a legal manner.

D. All abandoned and/or otherwise unused piping shall be securely capped using materials of the same composition as the original piping.

1.22 RECORD DOCUMENTS

A. Drawings: The Contractor shall maintain and update daily a set of "blueline" prints in the Field Office for the sole purpose of recording "installed" conditions. Revise the drawings to reflect as-built conditions, including all addenda, change orders, final shop drawing reviews, and field routing. Underground utilities shall

be dimensionally located relative to readily accessible and identifiable permanent reference points, with accurate slope and elevation indicated. Submit prints for review. Revise, certify accuracy, and provide two final sets to the Architect.

B. Owner's Manual: Prior to final acceptance, provide two bound volumes to the Architect. Index by subject. Include corrected submittals and shop drawings that reflect final review comments; installation, operation and maintenance instructions, parts lists, wiring diagrams, and piping diagrams; warranties.

1.23 INSPECTION, OBSERVATION, AND TESTING

A. Cooperate with Architect's representative and authorities having jurisdiction. Provide complete access to the work at reasonable times.

B. Cover-up: Prior to covering up work, or conducting observed tests, request observation as appropriate. Provide adequate advance notice defined as a minimum of five working days. In some cases the Architect's representative may waive observation; otherwise arrange for observed construction and testing prior to cover-up. Should minimize required notice not to be provided and the contractor covers up work requiring observation, such work shall be uncovered at contractor's expense.

C. Pre-Testing: Self-inspect, pre-test, and remedy work prior to performing observed test.

D. Sectional Work: In circumstances where a requirement for phased construction or other considerations dictate sectional construction and/or testing, notify the Architect when construction begins on the first section of a system, and when the first section will be ready for observed testing, as well as subsequent sections. Test in the largest practical sections.

1.24 WORK PERFORMED UNDER OTHER DIVISIONS

A. Refer to Division 2 for piped utilities beyond 5 feet from the building.

B. Refer to Division 16 for power wiring systems external to equipment and control panels; starters in motor centers; safety switches not integral to equipment or starters provided under Division 15.

C. Refer to Division 14 for kitchen, laboratory, medical and like equipment.

1.25 REFERENCE TO OTHER DIVISIONS

A. Refer to Division 16 for additional material requirements of electrical components provided under Division 15, such as loose starters, wiring and devices integral to equipment.

B. Refer to Division 2 for additional requirements governing excavation and backfill, supplemental to the requirements stated in this Division 15.

C. Comply with all requirements applicable to work required under this Division.

1.26 TESTING SERVICES

A. Additional Testing: In addition to any specified testing, the Architect may cause additional testing to be performed by an independent testing laboratory or any other qualified party. If such testing reveals deficient work by the Contractor, the Contractor shall pay for both the testing and remedial work. If such testing does not reveal deficient work by the Contractor, the Owner shall pay for the testing and the cost of repairing any damage caused by such testing.

B. Specified Testing Services: If independent testing services are specified regarding work under this Division, cooperate fully with the testing agency. Provide access to the work. Provide test holes and taps necessary. Remove work that is not tested on site, deliver to testing agency, and reinstall if undamaged; replace if damaged. Provide utilities, operational capability, and facilities for on-site testing as necessary.

1.27 WORK BY OWNER

A. The owner will award contracts on work which includes:

1. None.

1.28 OWNER FURNISHED PRODUCTS

A. Products furnished to the site and paid for by the Owner.

1. None.

END OF SECTION 15010

SECTION 15050 - MECHANICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following basic mechanical materials and methods to complement other Division 15 Sections.

1. Piping materials and installation instructions common to most piping systems.
2. Concrete base construction requirements.
3. Escutcheons.
4. Dielectric fittings.
5. Flexible connectors.
6. Mechanical sleeve seals.
7. Equipment nameplate data requirements.
8. Labeling and identifying mechanical systems and equipment is specified in Division 15 Section "Mechanical Identification."
9. Nonshrink grout for equipment installations.
10. Field-fabricated metal and wood equipment supports.
11. Installation requirements common to equipment specification sections.
12. Mechanical demolition.
13. Cutting and patching.
14. Touchup painting and finishing.

B. Pipe and pipe fitting materials are specified in Division 15 piping system Sections.

1.3 DEFINITIONS

A. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawl spaces, and tunnels.

B. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.

C. Exposed, Exterior Installations: Exposed to view outdoors, or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.

D. Concealed, Interior Installations: Concealed from view and protected from physical contact by building occupants. Examples include above ceilings and in duct shafts.

E. Concealed, Exterior Installations: Concealed from view and protected from weather conditions and physical contact by building occupants, but subject to outdoor ambient temperatures. Examples include installations within unheated shelters.

F. The following are industry abbreviations for plastic materials:

1. ABS: Acrylonitrile-butadiene-styrene plastic.
2. CPVC: Chlorinated polyvinyl chloride plastic.
3. NP: Nylon plastic.
4. PE: Polyethylene plastic.
5. PVC: Polyvinyl chloride plastic.

G. The following are industry abbreviations for rubber materials:

1. CR: Chlorosulfonated polyethylene synthetic rubber.
2. EPDM: Ethylene propylene diene terpolymer rubber.

1.4 SUBMITTALS

A. Product Data Book: Submit product data for all Division 15 items in a single reinforced 3-ring binder. Organize product data by specification section number. Provide table of contents showing the following:
1. Specification Section
2. Description of item
3. Submission number (1st submission, 2nd submission, etc.)
4. Submittal status (Approved, Revise and Resubmit, etc.)

B. Product Data: For dielectric fittings, flexible connectors, mechanical sleeve seals, and identification materials and devices.

C. Shop Drawings: Detail fabrication and installation for metal and wood supports and anchorage for mechanical materials and equipment.

D. Coordination Drawings: For access panel and door locations.

E. Coordination Drawings: Detail major elements, components, and systems of mechanical equipment and materials in relationship with other systems, installations, and building components. Show space requirements for installation and access. Indicate if sequence and coordination of installations are important to efficient flow of the Work. Include the following:

1. Planned piping layout, including valve and specialty locations and valve-stem movement.
2. Clearances for installing and maintaining insulation.
3. Clearances for servicing and maintaining equipment, accessories, and specialties, including space for disassembly required for periodic maintenance.
4. Equipment and accessory service connections and support details.
5. Exterior wall and foundation penetrations.
6. Fire-rated wall and floor penetrations.
7. Sizes and location of required concrete pads and bases.
8. Scheduling, sequencing, movement, and positioning of large equipment into building during construction.
9. Floor plans, elevations, and details to indicate penetrations in floors, walls, and ceilings and their relationship to other penetrations and installations.
10. Reflected ceiling plans to coordinate and integrate installation of air outlets and inlets, light fixtures, communication system components, sprinklers, and other ceiling-mounted items.

F. Samples: Of color, lettering style, and other graphic representation required for each identification material and device.

1.5 QUALITY ASSURANCE

A. Comply with ASME A13.1 for lettering size, length of color field, colors, and viewing angles of identification devices.

B. Equipment Selection: Equipment of higher electrical characteristics, physical dimensions, capacities, and ratings may be furnished provided such proposed equipment is approved in writing and connecting mechanical and electrical services, circuit breakers, conduit, motors, bases, and equipment spaces are increased. Additional costs shall be approved in advance by appropriate Contract Modification for these increases. If minimum energy ratings or efficiencies of equipment are specified, equipment must meet design and commissioning requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and prevent entrance of dirt, debris, and moisture.

B. Protect stored pipes and tubes from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor, if stored inside.

C. Protect flanges, fittings, and piping specialties from moisture and dirt.

D. Store plastic pipes protected from direct sunlight. Support to prevent sagging and bending.

1.7 SEQUENCING AND SCHEDULING

A. Coordinate mechanical equipment installation with other building components.

B. Arrange for pipe spaces, chases, slots, and openings in building structure during progress of construction to allow for mechanical installations.

C. Coordinate installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components, as they are constructed.

D. Sequence, coordinate, and integrate installations of mechanical materials and equipment for efficient flow of the Work. Coordinate installation of large equipment requiring positioning before closing in building.

E. Coordinate connection of mechanical systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies.

F. Coordinate requirements for access panels and doors if mechanical items requiring access are concealed behind finished surfaces. Access panels and doors are specified in Division 8 Section "Access Doors."

G. Coordinate installation of identifying devices after completing covering and painting, if devices are applied to surfaces. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Dielectric Unions:

    a. Capitol Manufacturing Co.
    b. Central Plastics Co.
    c. Eclipse, Inc.; Rockford-Eclipse Div.
    d. Epco Sales Inc.
    e. Hart Industries International, Inc.
    f. Watts Industries, Inc.; Water Products Div.
    g. Zurn Industries, Inc.; Wilkins Div.

2. Dielectric Flanges:

    a. Capitol Manufacturing Co.
    b. Central Plastics Co.
    c. Epco Sales Inc.
    d. Watts Industries, Inc.; Water Products Div.

3. Dielectric-Flange Insulating Kits:

    a. Calpico, Inc.
    b. Central Plastics Co.

4. Dielectric Couplings:

    a. Calpico, Inc.
    b. Lochinvar Corp.

5. Dielectric Nipples:

    a. Grinnell Corp.; Grinnell Supply Sales Co.
    b. Perfection Corp.
    c. Victaulic Co. of America.

6. Metal, Flexible Connectors:

    a. ANAMET Industrial, Inc.
    b. Central Sprink, Inc.
    c. Flexicraft Industries.
    d. Flex-Weld, Inc.
    e. Grinnell Corp.; Grinnell Supply Sales Co.

f. Hyspan Precision Products, Inc.
g. McWane, Inc.; Tyler Pipe; Gustin-Bacon Div.
h. Mercer Rubber Co.
i. Metraflex Co.
j. Proco Products, Inc.
k. Uniflex, Inc.

7. Rubber, Flexible Connectors:

a. General Rubber Corp.
b. Mercer Rubber Co.
c. Metraflex Co.
d. Proco Products, Inc.
e. Red Valve Co., Inc.
f. Uniflex, Inc.

8. Mechanical Sleeve Seals:

a. Calpico, Inc.
b. Metraflex Co.
c. Thunderline/Link-Seal.

2.2 PIPE AND PIPE FITTINGS

A. Refer to individual Division 15 piping Sections for pipe and fitting materials and joining methods.

B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.3 JOINING MATERIALS

A. Refer to individual Division 15 piping Sections for special joining materials not listed below.

B. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.

1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch maximum thickness, unless thickness or specific material is indicated.

a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.

2. AWWA C110, rubber, flat face, 1/8 inch thick, unless otherwise indicated; and full-face or ring type, unless otherwise indicated.

C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.

D. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.

E. Solder Filler Metals: ASTM B 32.

1. Alloy Sn95 or Alloy Sn94: Approximately 95 percent tin and 5 percent silver, with 0.10 percent lead content.
2. Alloy E: Approximately 95 percent tin and 5 percent copper, with 0.10 percent maximum lead content.
3. Alloy HA: Tin-antimony-silver-copper zinc, with 0.10 percent maximum lead content.
4. Alloy HB: Tin-antimony-silver-copper nickel, with 0.10 percent maximum lead content.
5. Alloy Sb5: 95 percent tin and 5 percent antimony, with 0.20 percent maximum lead content.

F. Brazing Filler Metals: AWS A5.8.

1. BCuP Series: Copper-phosphorus alloys.
2. BAg1: Silver alloy.

G. Welding Filler Metals: Comply with AWS D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.

H. Solvent Cements: Manufacturer's standard solvent cements for the following:

1. ABS Piping: ASTM D 2235.
2. CPVC Piping: ASTM F 493.
3. PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.
4. PVC to ABS Piping Transition: ASTM D 3138.

I. Plastic Pipe Seals: ASTM F 477, elastomeric gasket.

J. Flanged, Ductile-Iron Pipe Gasket, Bolts, and Nuts: AWWA C110, rubber gasket, carbon-steel bolts and nuts.

K. Couplings: Iron-body sleeve assembly, fabricated to match OD of plain-end, pressure pipes.

1. Sleeve: ASTM A 126, Class B, gray iron.
2. Followers: ASTM A 47 malleable iron or ASTM A 536 ductile iron.

3. Gaskets: Rubber.
4. Bolts and Nuts: AWWA C111.
5. Finish: Enamel paint.

2.4 DIELECTRIC FITTINGS

A. General: Assembly or fitting with insulating material isolating joined dissimilar metals, to prevent galvanic action and stop corrosion.

B. Description: Combination of copper alloy and ferrous; threaded, solder, plain, and weld-neck end types and matching piping system materials.

C. Insulating Material: Suitable for system fluid, pressure, and temperature.

D. Dielectric Unions: Factory-fabricated, union assembly, for 250-psig minimum working pressure at 180 deg F.

E. Dielectric Flanges: Factory-fabricated, companion-flange assembly, for 150- or 300-psig minimum working pressure as required to suit system pressures.

F. Dielectric-Flange Insulation Kits: Field-assembled, companion-flange assembly, full-face or ring type. Components include neoprene or phenolic gasket, phenolic or polyethylene bolt sleeves, phenolic washers, and steel backing washers.

1. Provide separate companion flanges and steel bolts and nuts for 150- or 300-psig minimum working pressure as required to suit system pressures.

G. Dielectric Couplings: Galvanized-steel coupling with inert and noncorrosive, thermoplastic lining; threaded ends; and 300-psig minimum working pressure at 225 deg F.

H. Dielectric Nipples: Electroplated steel nipple with inert and noncorrosive, thermoplastic lining; plain, threaded, or grooved ends; and 300-psig minimum working pressure at 225 deg F.

2.5 FLEXIBLE CONNECTORS

A. General: Fabricated from materials suitable for system fluid and that will provide flexible pipe connections. Include 125-psig minimum working-pressure rating, unless higher working pressure is indicated, and ends according to the following:

1. 2-Inch NPS and Smaller: Threaded.
2. 2-1/2-Inch NPS and Larger: Flanged.

3. Option for 2-1/2-Inch NPS and Larger: Grooved for use with keyed couplings.

B. Bronze-Hose, Flexible Connectors: Corrugated, bronze, inner tubing covered with bronze wire braid. Include copper-tube ends or bronze flanged ends, braze welded to hose.

C. Stainless-Steel-Hose/Steel Pipe, Flexible Connectors: Corrugated, stainless-steel, inner tubing covered with stainless-steel wire braid. Include steel nipples or flanges, welded to hose.

D. Stainless-Steel-Hose/Stainless-Steel Pipe, Flexible Connectors: Corrugated, stainless-steel, inner tubing covered with stainless-steel wire braid. Include stainless-steel nipples or flanges, welded to hose.

E. Rubber, Flexible Connectors: CR or EPDM elastomer rubber construction, with multiple plies of NP fabric, molded and cured in hydraulic presses. Include 125-psig minimum working-pressure rating at 220 deg F. Units may be straight or elbow type, unless otherwise indicated.

2.6 MECHANICAL SLEEVE SEALS

A. Description: Modular design, with interlocking rubber links shaped to continuously fill annular space between pipe and sleeve. Include connecting bolts and pressure plates.

2.7 PIPING SPECIALTIES

A. Sleeves: The following materials are for wall, floor, slab, and roof penetrations:

1. Steel Sheet Metal: 0.0239-inch minimum thickness, galvanized, round tube closed with welded longitudinal joint.
2. Steel Pipe: ASTM A 53, Type E, Grade A, Schedule 40, galvanized, plain ends.
3. Cast Iron: Cast or fabricated "wall pipe" equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.
4. Stack Sleeve Fittings: Manufactured, cast-iron sleeve with integral clamping flange. Include clamping ring and bolts and nuts for membrane flashing.

    a. Underdeck Clamp: Clamping ring with set screws.

5. PVC: Manufactured, permanent, with nailing flange for attaching to wooden forms.
6. PVC Pipe: ASTM D 1785, Schedule 40.

7. PE: Manufactured, reusable, tapered, cup shaped, smooth outer surface, with nailing flange for attaching to wooden forms.

B. Escutcheons: Manufactured wall, ceiling, and floor plates; deep-pattern type if required to conceal protruding fittings and sleeves.

1. ID: Closely fit around pipe, tube, and insulation of insulated piping.
2. OD: Completely cover opening.
3. Cast Brass: One piece, with set screw.

   a. Finish: Rough brass.
   b. Finish: Polished chrome-plate.

4. Cast Brass: Split casting, with concealed hinge and set screw.

   a. Finish: Rough brass.
   b. Finish: Polished chrome-plate.

5. Stamped Steel: One piece, with set screw and chrome-plated finish.
6. Stamped Steel: One piece, with spring clips and chrome-plated finish.
7. Stamped Steel: Split plate, with concealed hinge, set screw, and chrome-plated finish.
8. Stamped Steel: Split plate, with concealed hinge, spring clips, and chrome-plated finish.
9. Stamped Steel: Split plate, with exposed-rivet hinge, set screw, and chrome-plated finish.
10. Stamped Steel: Split plate, with exposed-rivet hinge, spring clips, and chrome-plated finish.
11. Cast-Iron Floor Plate: One-piece casting.

2.8 IDENTIFYING DEVICES AND LABELS

A. General: Manufacturer's standard products of categories and types required for each application as referenced in other Division 15 Sections. If more than one type is specified for application, selection is Installer's option, but provide one selection for each product category.

B. Equipment Nameplates: Metal nameplate with operational data engraved or stamped; permanently fastened to equipment.

1. Data: Manufacturer, product name, model number, serial number, capacity, operating and power characteristics, labels of tested compliances, and similar essential data.
2. Location: Accessible and visible location.

C. Stencils: Standard stencils, prepared for required applications with letter sizes complying with recommendations of ASME A13.1 for piping and similar applications, but not less than 1-1/4-inch- high letters for ductwork and not less than 3/4-inch- high letters for access door signs and similar operational instructions.

1. Material: Fiberboard.
2. Material: Brass.
3. Stencil Paint: Standard exterior-type stenciling enamel; black, unless otherwise indicated; either brushing grade or pressurized spray-can form and grade.
4. Identification Paint: Standard identification enamel of colors indicated or, if not otherwise indicated for piping systems, comply with ASME A13.1 for colors.

D. Snap-on Plastic Pipe Markers: Manufacturer's standard preprinted, semirigid, snap on, color-coded, complying with ASME A13.1.

E. Pressure-Sensitive Pipe Markers: Manufacturer's standard preprinted, permanent adhesive, color-coded, pressure-sensitive vinyl, complying with ASME A13.1.

F. Plastic Duct Markers: Manufacturer's standard color-coded, laminated plastic. Comply with the following color code:

1. Green: Cold air.
2. Yellow: Hot air.
3. Yellow/Green or Green: Supply air.
4. Blue: Exhaust, outside, return, and mixed air.
5. For hazardous exhausts, use colors and designs recommended by ASME A13.1.
6. Nomenclature: Include the following:

    a. Direction of airflow.
    b. Duct service.
    c. Duct origin.
    d. Duct destination.
    e. Design cubic feet per meter.

G. Engraved Plastic-Laminate Signs: ASTM D 709, Type I, cellulose, paper-base, phenolic-resin-laminate engraving stock; Grade ES-2, black surface, black phenolic core, with white melamine subcore, unless otherwise indicated.

1. Fabricate in sizes required for message.
2. Engraved with engraver's standard letter style, of sizes and with wording to match equipment identification.

3. Punch for mechanical fastening.
4. Thickness: 1/16 inch, unless otherwise indicated.
5. Thickness: 1/8 inch, unless otherwise indicated.
6. Thickness: 1/16 inch, for units up to 20 sq. in. or 8 inches long; 1/8 inch for larger units.
7. Fasteners: Self-tapping stainless-steel screws or contact-type permanent adhesive.

H. Plastic Equipment Markers: Color-coded, laminated plastic. Comply with the following color code:

1. Green: Cooling equipment and components.
2. Yellow: Heating equipment and components.
3. Yellow/Green: Combination cooling and heating equipment and components.
4. Brown: Energy reclamation equipment and components.
5. Blue: Equipment and components that do not meet any criteria above.
6. For hazardous equipment, use colors and designs recommended by ASME A13.1.
7. Nomenclature: Include the following, matching terminology on schedules as closely as possible:

    a. Name and plan number.
    b. Equipment service.
    c. Design capacity.
    d. Other design parameters such as pressure drop, entering and leaving conditions, and rpm.

8. Size: Approximate 2-1/2 by 4 inches for control devices, dampers, and valves; and 4-1/2 by 6 inches for equipment.

I. Lettering and Graphics: Coordinate names, abbreviations, and other designations used in mechanical identification, with corresponding designations indicated. Use numbers, lettering, and wording indicated for proper identification and operation/maintenance of mechanical systems and equipment.

1. Multiple Systems: If multiple systems of same generic name are indicated, provide identification that indicates individual system number and service such as "Boiler No. 3," "Air Supply No. 1H," or "Standpipe F12."

2.9 GROUT

A. Nonshrink, Nonmetallic Grout: ASTM C 1107, Grade B.

1. Characteristics: Post-hardening, volume-adjusting, dry, hydraulic-cement grout, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
2. Design Mix: 5000-psig, 28-day compressive strength.
3. Packaging: Premixed and factory packaged.

PART 3 - EXECUTION

3.1 PIPING SYSTEMS - COMMON REQUIREMENTS

A. General: Install piping as described below, unless piping Sections specify otherwise. Individual Division 15 piping Sections specify unique piping installation requirements.

B. General Locations and Arrangements: Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated, unless deviations to layout are approved on Coordination Drawings.

C. Install piping at indicated slope.

D. Install components with pressure rating equal to or greater than system operating pressure.

E. Install piping in concealed interior and exterior locations, except in equipment rooms and service areas.

F. Install piping free of sags and bends.

G. Install exposed interior and exterior piping at right angles or parallel to building walls. Diagonal runs are prohibited, unless otherwise indicated.

H. Install piping tight to slabs, beams, joists, columns, walls, and other building elements. Allow sufficient space above removable ceiling panels to allow for ceiling panel removal.

I. Install piping to allow application of insulation plus 1-inch clearance around insulation.

J. Locate groups of pipes parallel to each other, spaced to permit valve servicing.

K. Install fittings for changes in direction and branch connections.

L. Install couplings according to manufacturer's written instructions.

M. Install pipe escutcheons for pipe penetrations of concrete and masonry walls, wall board partitions, and suspended ceilings according to the following:

1. Chrome-Plated Piping: Cast brass, one piece, with set screw, and polished chrome-plated finish. Use split-casting escutcheons if required, for existing piping.
2. Uninsulated Piping Wall Escutcheons: Cast brass or stamped steel, with set screw.
3. Uninsulated Piping Floor Plates in Utility Areas: Cast-iron floor plates.
4. Insulated Piping: Cast brass or stamped steel; with concealed hinge, spring clips, and chrome-plated finish.
5. Piping in Utility Areas: Cast brass or stamped steel, with set-screw or spring clips.

N. Sleeves are not required for core drilled holes.

O. Permanent sleeves are not required for holes formed by PE removable sleeves.

P. Install sleeves for pipes passing through concrete and masonry walls, and concrete floor and roof slabs.

Q. Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, and concrete floor and roof slabs.

1. Cut sleeves to length for mounting flush with both surfaces.

    a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches above finished floor level. Extend cast-iron sleeve fittings below floor slab as required to secure clamping ring if ring is specified.

2. Build sleeves into new walls and slabs as work progresses.
3. Install sleeves large enough to provide 1/4-inch annular clear space between sleeve and pipe or pipe insulation. Use the following sleeve materials:

    a. PVC Pipe Sleeves: For pipes smaller than 6-inch NPS.
    b. Steel Pipe Sleeves: For pipes smaller than 6-inch NPS.
    c. Steel, Sheet-Metal Sleeves: For pipes 6-inch NPS and larger, penetrating gypsum-board partitions.
    d. Stack Sleeve Fittings: For pipes penetrating floors with membrane waterproofing. Secure flashing between clamping flanges. Install section of cast-iron soil pipe to extend sleeve to 2 inches above

finished floor level. Refer to Division 7 Section "Sheet Metal Flashing and Trim" for flashing.

1) Seal space outside of sleeve fittings with nonshrink, nonmetallic grout.

4. Except for underground wall penetrations, seal annular space between sleeve and pipe or pipe insulation, using elastomeric joint sealants. Refer to Division 7 Section "Joint Sealants" for materials.
5. Use Type S, Grade NS, Class 25, Use O, neutral-curing silicone sealant, unless otherwise indicated.

R. Aboveground, Exterior-Wall, Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Size sleeve for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.

1. Install steel pipe for sleeves smaller than 6 inches in diameter.
2. Install cast-iron "wall pipes" for sleeves 6 inches in diameter and larger.
3. Assemble and install mechanical sleeve seals according to manufacturer's written instructions. Tighten bolts that cause rubber sealing elements to expand and make watertight seal.

S. Underground, Exterior-Wall, Pipe Penetrations: Install cast-iron "wall pipes" for sleeves. Seal pipe penetrations using mechanical sleeve seals. Size sleeve for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.

1. Assemble and install mechanical sleeve seals according to manufacturer's written instructions. Tighten bolts that cause rubber sealing elements to expand and make watertight seal.

T. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestopping materials. Refer to Division 7 Section "Firestopping" for materials.

U. Verify final equipment locations for roughing-in.

V. Refer to equipment specifications in other Sections of these Specifications for roughing-in requirements.

W. Piping Joint Construction: Join pipe and fittings as follows and as specifically required in individual piping specification Sections:

1. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

2. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
3. Soldered Joints: Construct joints according to AWS's "Soldering Manual," Chapter "The Soldering of Pipe and Tube"; or CDA's "Copper Tube Handbook."
4. Soldered Joints: Construct joints according to AWS's "Soldering Manual," Chapter "The Soldering of Pipe and Tube."
5. Soldered Joints: Construct joints according to CDA's "Copper Tube Handbook."
6. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," Chapter "Pipe and Tube."
7. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:

    a. Note internal length of threads in fittings or valve ends, and proximity of internal seat or wall, to determine how far pipe should be threaded into joint.
    b. Apply appropriate tape or thread compound to external pipe threads, unless dry seal threading is specified.
    c. Align threads at point of assembly.
    d. Tighten joint with wrench. Apply wrench to valve end into which pipe is being threaded.
    e. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.

8. Welded Joints: Construct joints according to AWS D10.12, "Recommended Practices and Procedures for Welding Low Carbon Steel Pipe," using qualified processes and welding operators according to "Quality Assurance" Article.
9. Flanged Joints: Align flange surfaces parallel. Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Assemble joints by sequencing bolt tightening to make initial contact of flanges and gaskets as flat and parallel as possible. Use suitable lubricants on bolt threads. Tighten bolts gradually and uniformly using torque wrench.
10. Plastic Piping Solvent-Cement Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join pipe and fittings according to the following:

    a. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements.
    b. ABS Piping: ASTM D 2235 and ASTM D 2661.

c. CPVC Piping: ASTM D 2846 and ASTM F 493.
d. PVC Pressure Piping: ASTM D 2672.
e. PVC Nonpressure Piping: ASTM D 2855.
f. PVC to ABS Nonpressure Transition Fittings: Procedure and solvent cement according to ASTM D 3138.

11. Plastic Piping Heat-Fusion Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join according to ASTM D 2657 procedures and manufacturer's written instructions.

a. Plain-End Pipe and Fittings: Use butt fusion.
b. Plain-End Pipe and Socket Fittings: Use socket fusion.

X. Piping Connections: Make connections according to the following, unless otherwise indicated:

1. Install unions, in piping 2-inch NPS and smaller, adjacent to each valve and at final connection to each piece of equipment with 2-inch NPS or smaller threaded pipe connection.
2. Install flanges, in piping 2-1/2-inch NPS and larger, adjacent to flanged valves and at final connection to each piece of equipment with flanged pipe connection.
3. Dry Piping Systems: Install dielectric unions and flanges to connect piping materials of dissimilar metals.
4. Wet Piping Systems: Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals.

3.2 EQUIPMENT INSTALLATION - COMMON REQUIREMENTS

A. Install equipment to provide maximum possible headroom, if mounting heights are not indicated.

B. Install equipment according to approved submittal data. Portions of the Work are shown only in diagrammatic form. Refer conflicts to Architect.

C. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, unless otherwise indicated.

D. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.

E. Install equipment giving right of way to piping installed at required slope.

F. Install flexible connectors on equipment side of shutoff valves, horizontally and parallel to equipment shafts if possible.

3.3 LABELING AND IDENTIFYING

A. Piping Systems: Install pipe markers on each system. Include arrows showing normal direction of flow.

1. Stenciled Markers: According to ASME A13.1.
2. Plastic markers, with application systems. Install on insulation segment if required for hot, uninsulated piping.
3. Locate pipe markers as follows if piping is exposed in finished spaces, machine rooms, and accessible maintenance spaces, such as shafts, tunnels, plenums, and exterior nonconcealed locations:

    a. Near each valve and control device.
    b. Near each branch, excluding short takeoffs for fixtures and terminal units. Mark each pipe at branch, if flow pattern is not obvious.
    c. Near locations if pipes pass through walls, floors, ceilings, or enter nonaccessible enclosures.
    d. At access doors, manholes, and similar access points that permit view of concealed piping.
    e. Near major equipment items and other points of origination and termination.
    f. Spaced at maximum of 50-foot intervals along each run. Reduce intervals to 25 feet in congested areas of piping and equipment.
    g. On piping above removable acoustical ceilings, except omit intermediately spaced markers.

B. Equipment: Install engraved plastic-laminate sign or equipment marker on or near each major item of mechanical equipment.

1. Lettering Size: Minimum 1/4-inch- high lettering for name of unit if viewing distance is less than 24 inches, 1/2-inch- high lettering for distances up to 72 inches, and proportionately larger lettering for greater distances. Provide secondary lettering two-thirds to three-fourths of size of principal lettering.
2. Text of Signs: Provide name of identified unit. Include text to distinguish between multiple units, inform user of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.

C. Duct Systems: Identify air supply, return, exhaust, intake, and relief ducts with duct markers; or provide stenciled signs and arrows, showing duct system service and direction of flow.

1. Location: In each space, if ducts are exposed or concealed by removable ceiling system, locate signs near points where ducts enter into space and at maximum intervals of 50 feet.

D. Adjusting: Relocate identifying devices as necessary for unobstructed view in finished construction.

3.4 PAINTING AND FINISHING

A. Refer to Division 9 Section "Painting" for paint materials, surface preparation, and application of paint.

B. Apply paint to exposed piping according to the following, unless otherwise indicated:

1. Interior, Ferrous Piping: Use semigloss, acrylic-enamel finish. Include finish coat over enamel undercoat and primer.
2. Interior, Galvanized-Steel Piping: Use semigloss, acrylic-enamel finish. Include two finish coats over galvanized metal primer.
3. Interior, Ferrous Supports: Use semigloss, acrylic-enamel finish. Include finish coat over enamel undercoat and primer.
4. Exterior, Ferrous Piping: Use semigloss, acrylic-enamel finish. Include two finish coats over rust-inhibitive metal primer.
5. Exterior, Galvanized-Steel Piping: Use semigloss, acrylic-enamel finish. Include two finish coats over galvanized metal primer.
6. Exterior, Ferrous Supports: Use semigloss, acrylic-enamel finish. Include two finish coats over rust-inhibitive metal primer.

C. Do not paint piping specialties with factory-applied finish.

D. Damage and Touchup: Repair marred and damaged factory-painted finishes with materials and procedures to match original factory finish.

3.5 CONCRETE BASES

A. Construct concrete bases of dimensions indicated, but not less than 4 inches larger in both directions than supported unit. Follow supported equipment manufacturer's setting templates for anchor bolt and tie locations. Use 3000-psig, 28-day compressive-strength concrete and reinforcement as specified in Division 3 Section "Cast-in-Place Concrete."

3.6 ERECTION OF METAL SUPPORTS AND ANCHORAGE

A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor mechanical materials and equipment.

B. Field Welding: Comply with AWS D1.1, "Structural Welding Code--Steel."

3.7 ERECTION OF WOOD SUPPORTS AND ANCHORAGE

A. Cut, fit, and place wood grounds, nailers, blocking, and anchorage to support and anchor mechanical materials and equipment.

B. Select fastener sizes that will not penetrate members if opposite side will be exposed to view or will receive finish materials. Tighten connections between members. Install fasteners without splitting wood members.

C. Attach to substrates as required to support applied loads.

3.8 DEMOLITION

A. Disconnect, demolish, and remove Work specified in Division 15 Sections.

B. If pipe, ductwork, insulation, or equipment to remain is damaged or disturbed, remove damaged portions and install new products of equal capacity and quality.

C. Accessible Work: Remove indicated exposed pipe and ductwork in its entirety.

D. Work Abandoned in Place: Cut and remove underground pipe a minimum of 2 inches beyond face of adjacent construction. Cap and patch surface to match existing finish.

E. Removal: Remove indicated equipment from Project site.

F. Temporary Disconnection: Remove, store, clean, reinstall, reconnect, and make operational equipment indicated for relocation.

3.9 CUTTING AND PATCHING

A. Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other surfaces necessary for mechanical installations. Perform cutting by skilled mechanics of trades involved.

B. Repair cut surfaces to match adjacent surfaces.

3.10 GROUTING

A. Install nonmetallic, nonshrink, grout for mechanical equipment base bearing surfaces, pump and other equipment base plates, and anchors. Mix grout according to manufacturer's written instructions.

B. Clean surfaces that will come into contact with grout.

C. Provide forms as required for placement of grout.

D. Avoid air entrapment during placing of grout.

E. Place grout, completely filling equipment bases.

F. Place grout on concrete bases to provide smooth bearing surface for equipment.

G. Place grout around anchors.

H. Cure placed grout according to manufacturer's written instructions.

END OF SECTION 15050

SECTION 15067 - HANGERS AND SUPPORTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following hangers and supports for HVAC system piping and equipment:

1. Steel pipe hangers and supports.
2. Trapeze pipe hangers.
3. Fiberglass pipe hangers.
4. Metal framing systems.
5. Fiberglass strut systems.
6. Thermal-hanger shield inserts.
7. Fastener systems.
8. Pipe stands.
9. Equipment supports.

B. Related Sections include the following:

1. Division 5 Section "Metal Fabrications" for structural-steel shapes and plates for trapeze hangers for pipe and equipment supports.
2. Division 13 Section "Fire-Suppression Piping" for pipe hangers for fire-protection piping.
3. Division 15 Section "Vibration and Seismic Controls for HVAC Piping and Equipment" for vibration isolation devices.
4. Division 15 Section "Expansion Fittings and Loops for HVAC Piping" for pipe guides and anchors.
5. Division 15 Section(s) "Metal Ducts" for duct hangers and supports.

1.3 DEFINITIONS

A. MSS: Manufacturers Standardization Society for The Valve and Fittings Industry Inc.

B. Terminology: As defined in MSS SP-90, "Guidelines on Terminology for Pipe Hangers and Supports."

1.4 PERFORMANCE REQUIREMENTS

A. Design supports for multiple pipes, including pipe stands, capable of supporting combined weight of supported systems, system contents, and test water.

B. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

C. Design seismic-restraint hangers and supports for piping and equipment.

1.5 SUBMITTALS

A. Product Data: For the following:

1. Steel pipe hangers and supports.
2. Fiberglass pipe hangers.
3. Thermal-hanger shield inserts.
4. Powder-actuated fastener systems.

B. Shop Drawings: Show fabrication and installation details and include calculations for the following:

1. Trapeze pipe hangers. Include Product Data for components.
2. Metal framing systems. Include Product Data for components.
3. Fiberglass strut systems. Include Product Data for components.
4. Pipe stands. Include Product Data for components.
5. Equipment supports.

C. Welding certificates.

1.6 QUALITY ASSURANCE

A. Welding: Qualify procedures and personnel according to AWS D1.1**,** **"**Structural Welding Code—Steel**”**

B. Welding: Qualify procedures and personnel according to the following:

1. AWS D1.1, "Structural Welding Code--Steel."

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
2. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 STEEL PIPE HANGERS AND SUPPORTS

A. Description: MSS SP-58, Types 1 through 58, factory-fabricated components. Refer to Part 3 "Hanger and Support Applications" Article for where to use specific hanger and support types.

B. Available Manufacturers:

1. AAA Technology & Specialties Co., Inc.
2. Bergen-Power Pipe Supports.
3. B-Line Systems, Inc.; a division of Cooper Industries.
4. Carpenter & Paterson, Inc.
5. Empire Industries, Inc.
6. ERICO/Michigan Hanger Co.
7. Globe Pipe Hanger Products, Inc.
8. Grinnell Corp.
9. GS Metals Corp.
10. National Pipe Hanger Corporation.
11. PHD Manufacturing, Inc.
12. PHS Industries, Inc.
13. Piping Technology & Products, Inc.
14. Tolco Inc.

C. Galvanized, Metallic Coatings: Pregalvanized or hot dipped.

D. Nonmetallic Coatings: Plastic coating, jacket, or liner.

E. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion for support of bearing surface of piping.

2.3 TRAPEZE PIPE HANGERS

A. Description: MSS SP-69, Type 59, shop- or field-fabricated pipe-support assembly made from structural-steel shapes with MSS SP-58 hanger rods, nuts, saddles, and U-bolts.

2.4 FIBERGLASS PIPE HANGERS

A. Clevis-Type, Fiberglass Pipe Hangers: Similar to MSS Type 1, steel pipe hanger except hanger is made of fiberglass and continuous-thread rod and nuts are made of polyurethane or stainless steel.

1. Available Manufacturers:

    a. B-Line Systems, Inc.; a division of Cooper Industries.
    b. Champion Fiberglass, Inc.
    c. Cope, T. J., Inc.; Tyco International, Ltd.
    d. Seasafe, Inc.
    e. Unistrut Corp.; Tyco International, Ltd.
    f. Wesanco, Inc.

B. Strap-Type, Fiberglass Pipe Hangers: Made of fiberglass loop with stainless-steel continuous-thread rod, nuts, and support hook.

1. Available Manufacturers:

    a. Plasti-Fab, Inc.

2.5 METAL FRAMING SYSTEMS

A. Description: MFMA-3, shop- or field-fabricated pipe-support assembly made of steel channels and other components.

B. Available Manufacturers:

1. B-Line Systems, Inc.; a division of Cooper Industries.
2. ERICO/Michigan Hanger Co.; ERISTRUT Div.
3. GS Metals Corp.
4. Power-Strut Div.; Tyco International, Ltd.
5. Thomas & Betts Corporation.
6. Tolco Inc.
7. Unistrut Corp.; Tyco International, Ltd.

C. Coatings: Manufacturer's standard finish, unless bare metal surfaces are indicated.

D. Nonmetallic Coatings: Plastic coating, jacket, or liner.

2.6 FIBERGLASS STRUT SYSTEMS

A. Description: Shop- or field-fabricated pipe-support assembly, similar to MFMA-3, made of fiberglass channels and other components.

B. Available Manufacturers:

1. B-Line Systems, Inc.; a division of Cooper Industries.
2. Champion Fiberglass, Inc.
3. Cope, T. J., Inc.; Tyco International Ltd.
4. Seasafe, Inc.

2.7 THERMAL-HANGER SHIELD INSERTS

A. Description: 100-psig- (690-kPa-) minimum, compressive-strength insulation insert encased in sheet metal shield.

B. Available Manufacturers:

1. Carpenter & Paterson, Inc.
2. ERICO/Michigan Hanger Co.
3. PHS Industries, Inc.
4. Pipe Shields, Inc.
5. Rilco Manufacturing Company, Inc.
6. Value Engineered Products, Inc.

C. Insulation-Insert Material for Cold Piping: ASTM C 552, Type II cellular glass with vapor barrier.

D. Insulation-Insert Material for Hot Piping: ASTM C 552, Type II cellular glass.

E. For Trapeze or Clamped Systems: Insert and shield shall cover entire circumference of pipe.

F. For Clevis or Band Hangers: Insert and shield shall cover lower 180 degrees of pipe.

G. Insert Length: Extend 2 inches (50 mm) beyond sheet metal shield for piping operating below ambient air temperature.

2.8 FASTENER SYSTEMS

A. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

1. Available Manufacturers:

a. Hilti, Inc.
b. ITW Ramset/Red Head.
c. Masterset Fastening Systems, Inc.
d. MKT Fastening, LLC.
e. Powers Fasteners.

B. Mechanical-Expansion Anchors: Insert-wedge-type stainless steel, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

1. Available Manufacturers:

a. B-Line Systems, Inc.; a division of Cooper Industries.
b. Empire Industries, Inc.
c. Hilti, Inc.
d. ITW Ramset/Red Head.
e. MKT Fastening, LLC.
f. Powers Fasteners.

2.9 PIPE STAND FABRICATION

A. Pipe Stands, General: Shop or field-fabricated assemblies made of manufactured corrosion-resistant components to support roof-mounted piping.

B. Compact Pipe Stand: One-piece plastic unit with integral-rod-roller, pipe clamps, or V-shaped cradle to support pipe, for roof installation without membrane penetration.

1. Available Manufacturers:

a. ERICO/Michigan Hanger Co.
b. MIRO Industries.

C. Low-Type, Single-Pipe Stand: One-piece stainless-steel base unit with plastic roller, for roof installation without membrane penetration.

1. Available Manufacturers:

a. MIRO Industries.

D. High-Type, Single-Pipe Stand: Assembly of base, vertical and horizontal members, and pipe support, for roof installation without membrane penetration.

1. Available Manufacturers:

a. ERICO/Michigan Hanger Co.
b. MIRO Industries.
c. Portable Pipe Hangers.

2. Base: Stainless steel.
3. Vertical Members: Two or more cadmium-plated-steel or stainless-steel, continuous-thread rods.
4. Horizontal Member: Cadmium-plated-steel or stainless-steel rod with plastic or stainless-steel, roller-type pipe support.

E. High-Type, Multiple-Pipe Stand: Assembly of bases, vertical and horizontal members, and pipe supports, for roof installation without membrane penetration.

1. Available Manufacturers:

a. Portable Pipe Hangers.

2. Bases: One or more plastic.
3. Vertical Members: Two or more protective-coated-steel channels.
4. Horizontal Member: Protective-coated-steel channel.
5. Pipe Supports: Galvanized-steel, clevis-type pipe hangers.

F. Curb-Mounting-Type Pipe Stands: Shop- or field-fabricated pipe support made from structural-steel shape, continuous-thread rods, and rollers for mounting on permanent stationary roof curb.

2.10 EQUIPMENT SUPPORTS

A. Description: Welded, shop- or field-fabricated equipment support made from structural-steel shapes.

2.11 MISCELLANEOUS MATERIALS

A. Structural Steel: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.

B. Grout: ASTM C 1107, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.

1. Properties: Nonstaining, noncorrosive, and nongaseous.
2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

PART 3 - EXECUTION

3.1 HANGER AND SUPPORT APPLICATIONS

A. Specific hanger and support requirements are specified in Sections specifying piping systems and equipment.

B. Comply with MSS SP-69 for pipe hanger selections and applications that are not specified in piping system Sections.

C. Use hangers and supports with galvanized, metallic coatings for piping and equipment that will not have field-applied finish.

D. Use nonmetallic coatings on attachments for electrolytic protection where attachments are in direct contact with copper tubing.

E. Use padded hangers for piping that is subject to scratching.

F. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Adjustable, Steel Clevis Hangers (MSS Type 1): For suspension of noninsulated or insulated stationary pipes, NPS 1/2 to NPS 30 (DN 15 to DN 750).
2. Yoke-Type Pipe Clamps (MSS Type 2): For suspension of 120 to 450 deg F (49 to 232 deg C) pipes, NPS 4 to NPS 16 (DN 100 to DN 400), requiring up to 4 inches (100 mm) of insulation.
3. Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3): For suspension of pipes, NPS 3/4 to NPS 24 (DN 20 to DN 600), requiring clamp flexibility and up to 4 inches (100 mm) of insulation.
4. Steel Pipe Clamps (MSS Type 4): For suspension of cold and hot pipes, NPS 1/2 to NPS 24 (DN 15 to DN 600), if little or no insulation is required.
5. Pipe Hangers (MSS Type 5): For suspension of pipes, NPS 1/2 to NPS 4 (DN 15 to DN 100), to allow off-center closure for hanger installation before pipe erection.
6. Adjustable, Swivel Split- or Solid-Ring Hangers (MSS Type 6): For suspension of noninsulated stationary pipes, NPS 3/4 to NPS 8 (DN 20 to DN 200).

7. Adjustable, Steel Band Hangers (MSS Type 7): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 8 (DN 15 to DN 200).
8. Adjustable Band Hangers (MSS Type 9): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 8 (DN 15 to DN 200).
9. Adjustable, Swivel-Ring Band Hangers (MSS Type 10): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 2 (DN 15 to DN 50).
10. Split Pipe-Ring with or without Turnbuckle-Adjustment Hangers (MSS Type 11): For suspension of noninsulated stationary pipes, NPS 3/8 to NPS 8 (DN 10 to DN 200).
11. Extension Hinged or 2-Bolt Split Pipe Clamps (MSS Type 12): For suspension of noninsulated stationary pipes, NPS 3/8 to NPS 3 (DN 10 to DN 80).
12. U-Bolts (MSS Type 24): For support of heavy pipes, NPS 1/2 to NPS 30 (DN 15 to DN 750).
13. Clips (MSS Type 26): For support of insulated pipes not subject to expansion or contraction.
14. Pipe Saddle Supports (MSS Type 36): For support of pipes, NPS 4 to NPS 36 (DN 100 to DN 900), with steel pipe base stanchion support and cast-iron floor flange.
15. Pipe Stanchion Saddles (MSS Type 37): For support of pipes, NPS 4 to NPS 36 (DN 100 to DN 900), with steel pipe base stanchion support and cast-iron floor flange and with U-bolt to retain pipe.
16. Adjustable, Pipe Saddle Supports (MSS Type 38): For stanchion-type support for pipes, NPS 2-1/2 to NPS 36 (DN 65 to DN 900), if vertical adjustment is required, with steel pipe base stanchion support and cast-iron floor flange.
17. Single Pipe Rolls (MSS Type 41): For suspension of pipes, NPS 1 to NPS 30 (DN 25 to DN 750), from 2 rods if longitudinal movement caused by expansion and contraction might occur.
18. Adjustable Roller Hangers (MSS Type 43): For suspension of pipes, NPS 2-1/2 to NPS 20 (DN 65 to DN 500), from single rod if horizontal movement caused by expansion and contraction might occur.
19. Complete Pipe Rolls (MSS Type 44): For support of pipes, NPS 2 to NPS 42 (DN 50 to DN 1050), if longitudinal movement caused by expansion and contraction might occur but vertical adjustment is not necessary.
20. Pipe Roll and Plate Units (MSS Type 45): For support of pipes, NPS 2 to NPS 24 (DN 50 to DN 600), if small horizontal movement caused by expansion and contraction might occur and vertical adjustment is not necessary.
21. Adjustable Pipe Roll and Base Units (MSS Type 46): For support of pipes, NPS 2 to NPS 30 (DN 50 to DN 750), if vertical and lateral adjustment during installation might be required in addition to expansion and contraction.

G. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers, NPS 3/4 to NPS 20 (DN 20 to DN 500).
2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers, NPS 3/4 to NPS 20 (DN 20 to DN 500), if longer ends are required for riser clamps.

H. Hanger-Rod Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Steel Turnbuckles (MSS Type 13): For adjustment up to 6 inches (150 mm) for heavy loads.
2. Steel Clevises (MSS Type 14): For 120 to 450 deg F (49 to 232 deg C) piping installations.
3. Swivel Turnbuckles (MSS Type 15): For use with MSS Type 11, split pipe rings.
4. Malleable-Iron Sockets (MSS Type 16): For attaching hanger rods to various types of building attachments.
5. Steel Weldless Eye Nuts (MSS Type 17): For 120 to 450 deg F (49 to 232 deg C) piping installations.

I. Building Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Steel or Malleable Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.
2. Top-Beam C-Clamps (MSS Type 19): For use under roof installations with bar-joist construction to attach to top flange of structural shape.
3. Side-Beam or Channel Clamps (MSS Type 20): For attaching to bottom flange of beams, channels, or angles.
4. Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.
5. Welded Beam Attachments (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.
6. C-Clamps (MSS Type 23): For structural shapes.
7. Top-Beam Clamps (MSS Type 25): For top of beams if hanger rod is required tangent to flange edge.
8. Side-Beam Clamps (MSS Type 27): For bottom of steel I-beams.
9. Steel-Beam Clamps with Eye Nuts (MSS Type 28): For attaching to bottom of steel I-beams for heavy loads.
10. Linked-Steel Clamps with Eye Nuts (MSS Type 29): For attaching to bottom of steel I-beams for heavy loads, with link extensions.

11. Malleable Beam Clamps with Extension Pieces (MSS Type 30): For attaching to structural steel.
12. Welded-Steel Brackets: For support of pipes from below, or for suspending from above by using clip and rod. Use one of the following for indicated loads:

    a. Light (MSS Type 31): 750 lb (340 kg).
    b. Medium (MSS Type 32): 1500 lb (680 kg).
    c. Heavy (MSS Type 33): 3000 lb (1360 kg).

13. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
14. Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.
15. Horizontal Travelers (MSS Type 58): For supporting piping systems subject to linear horizontal movement where headroom is limited.

J. Saddles and Shields: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Steel Pipe-Covering Protection Saddles (MSS Type 39): To fill interior voids with insulation that matches adjoining insulation.
2. Protection Shields (MSS Type 40): Of length recommended in writing by manufacturer to prevent crushing insulation.
3. Thermal-Hanger Shield Inserts: For supporting insulated pipe.

K. Spring Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Restraint-Control Devices (MSS Type 47): Where indicated to control piping movement.
2. Spring Cushions (MSS Type 48): For light loads if vertical movement does not exceed 1-1/4 inches (32 mm).
3. Spring-Cushion Roll Hangers (MSS Type 49): For equipping Type 41 roll hanger with springs.
4. Spring Sway Braces (MSS Type 50): To retard sway, shock, vibration, or thermal expansion in piping systems.
5. Variable-Spring Hangers (MSS Type 51): Preset to indicated load and limit variability factor to 25 percent to absorb expansion and contraction of piping system from hanger.
6. Variable-Spring Base Supports (MSS Type 52): Preset to indicated load and limit variability factor to 25 percent to absorb expansion and contraction of piping system from base support.

7. Variable-Spring Trapeze Hangers (MSS Type 53): Preset to indicated load and limit variability factor to 25 percent to absorb expansion and contraction of piping system from trapeze support.
8. Constant Supports: For critical piping stress and if necessary to avoid transfer of stress from one support to another support, critical terminal, or connected equipment. Include auxiliary stops for erection, hydrostatic test, and load-adjustment capability. These supports include the following types:

    a. Horizontal (MSS Type 54): Mounted horizontally.
    b. Vertical (MSS Type 55): Mounted vertically.
    c. Trapeze (MSS Type 56): Two vertical-type supports and one trapeze member.

L. Comply with MSS SP-69 for trapeze pipe hanger selections and applications that are not specified in piping system Sections.

M. Comply with MFMA-102 for metal framing system selections and applications that are not specified in piping system Sections.

N. Use powder-actuated fasteners or mechanical-expansion anchors instead of building attachments where required in concrete construction.

3.2 HANGER AND SUPPORT INSTALLATION

A. Steel Pipe Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Install hangers, supports, clamps, and attachments as required to properly support piping from building structure.

B. Trapeze Pipe Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Arrange for grouping of parallel runs of horizontal piping and support together on field-fabricated trapeze pipe hangers.

1. Pipes of Various Sizes: Support together and space trapezes for smallest pipe size or install intermediate supports for smaller diameter pipes as specified above for individual pipe hangers.
2. Field fabricate from ASTM A 36/A 36M, steel shapes selected for loads being supported. Weld steel according to AWS D1.1.

C. Fiberglass Pipe Hanger Installation: Comply with applicable portions of MSS SP-69 and MSS SP-89. Install hangers and attachments as required to properly support piping from building structure.

D. Metal Framing System Installation: Arrange for grouping of parallel runs of piping and support together on field-assembled metal framing systems.

E. Fiberglass Strut System Installation: Arrange for grouping of parallel runs of piping and support together on field-assembled fiberglass struts.

F. Thermal-Hanger Shield Installation: Install in pipe hanger or shield for insulated piping.

G. Fastener System Installation:

1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches (100 mm) thick in concrete after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.
2. Install mechanical-expansion anchors in concrete after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions.

H. Pipe Stand Installation:

1. Pipe Stand Types except Curb-Mounting Type: Assemble components and mount on smooth roof surface. Do not penetrate roof membrane.
2. Curb-Mounting-Type Pipe Stands: Assemble components or fabricate pipe stand and mount on permanent, stationary roof curb. Refer to Division 7 Section "Roof Accessories" for curbs.

I. Install hangers and supports complete with necessary inserts, bolts, rods, nuts, washers, and other accessories.

J. Equipment Support Installation: Fabricate from welded-structural-steel shapes.

K. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.

L. Install lateral bracing with pipe hangers and supports to prevent swaying.

M. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, **NPS 2-1/2 (DN 65)**] and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.

N. Load Distribution: Install hangers and supports so piping live and dead loads and stresses from movement will not be transmitted to connected equipment.

O. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and so maximum pipe deflections allowed by ASME B31.1 (for power piping) and ASME B31.9 (for building services piping) are not exceeded.

P. Insulated Piping: Comply with the following:

1. Attach clamps and spacers to piping.

    a. Piping Operating above Ambient Air Temperature: Clamp may project through insulation.
    b. Piping Operating below Ambient Air Temperature: Use thermal-hanger shield insert with clamp sized to match OD of insert.
    c. Do not exceed pipe stress limits according to ASME B31.1 for power piping and ASME B31.9 for building services piping.

2. Install MSS SP-58, Type 39, protection saddles if insulation without vapor barrier is indicated. Fill interior voids with insulation that matches adjoining insulation.

    a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.

3. Install MSS SP-58, Type 40, protective shields on cold piping with vapor barrier. Shields shall span an arc of 180 degrees.

    a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.

4. Shield Dimensions for Pipe: Not less than the following:

    a. NPS 1/4 to NPS 3-1/2 (DN 8 to DN 90): 12 inches (305 mm) long and 0.048 inch (1.22 mm) thick.
    b. NPS 4 (DN 100): 12 inches (305 mm) long and 0.06 inch (1.52 mm) thick.
    c. NPS 5 and NPS 6 (DN 125 and DN 150): 18 inches (457 mm) long and 0.06 inch (1.52 mm) thick.
    d. NPS 8 to NPS 14 (DN 200 to DN 350): 24 inches (610 mm) long and 0.075 inch (1.91 mm) thick.
    e. NPS 16 to NPS 24 (DN 400 to DN 600): 24 inches (610 mm) long and 0.105 inch (2.67 mm) thick.

5. Pipes NPS 8 (DN 200) and Larger: Include wood inserts.
6. Insert Material: Length at least as long as protective shield.

7. Thermal-Hanger Shields: Install with insulation same thickness as piping insulation.

3.3 EQUIPMENT SUPPORTS

A. Fabricate structural-steel stands to suspend equipment from structure overhead or to support equipment above floor.

B. Grouting: Place grout under supports for equipment and make smooth bearing surface.

C. Provide lateral bracing, to prevent swaying, for equipment supports.

3.4 METAL FABRICATIONS

A. Cut, drill, and fit miscellaneous metal fabrications for trapeze pipe hangers and equipment supports.

B. Fit exposed connections together to form hairline joints. Field weld connections that cannot be shop welded because of shipping size limitations.

C. Field Welding: Comply with AWS D1.1 procedures for shielded metal arc welding, appearance and quality of welds, and methods used in correcting welding work, and with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. Finish welds at exposed connections so no roughness shows after finishing and contours of welded surfaces match adjacent contours.

3.5 ADJUSTING

A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.

B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches.

3.6 PAINTING

A. Touch Up: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.

1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils (0.05 mm).

B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 15062

SECTION 15077 – MECHANICAL IDENTIFICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Equipment labels.
2. Pipe labels.
3. Duct labels.
4. Stencils.
5. Valve tags.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples: For color, letter style, and graphic representation required for each identification material and device.

C. Equipment Label Schedule: Include a listing of all equipment to be labeled with the proposed content for each label.

D. Valve numbering scheme.

E. Valve Schedules: For each piping system to include in maintenance manuals.

1.4 COORDINATION

A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.

B. Coordinate installation of identifying devices with locations of access panels and doors.

C. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 EQUIPMENT LABELS

A. Metal Labels for Equipment:

1. Material and Thickness: Stainless steel, 0.025-inch (0.64-mm) minimum thickness, and having predrilled or stamped holes for attachment hardware.
2. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
3. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
4. Fasteners: Stainless-steel rivets or self-tapping screws.
5. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

B. Plastic Labels for Equipment:

1. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch (3.2 mm) thick, and having predrilled holes for attachment hardware.
2. Letter Color: Black.
3. Background Color: White.
4. Maximum Temperature: Able to withstand temperatures up to 160 deg F (71 deg C).
5. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
6. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
7. Fasteners: Stainless-steel rivets or self-tapping screws.
8. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

C. Label Content: Include equipment's Drawing designation or unique equipment number, Drawing numbers where equipment is indicated (plans, details, and schedules), plus the Specification Section number and title where equipment is specified.

D. Equipment Label Schedule: For each item of equipment to be labeled, on 8-1/2-by-11-inch (A4) bond paper. Tabulate equipment identification number and identify Drawing numbers where equipment is indicated (plans, details, and schedules), plus the Specification Section number and title where equipment is specified. Equipment schedule shall be included in operation and maintenance data.

2.2 PIPE LABELS

A. General Requirements for Manufactured Pipe Labels: Preprinted, color-coded, with lettering indicating service, and showing flow direction.

B. Pretensioned Pipe Labels: Precoiled, semirigid plastic formed to partially cover circumference of pipe and to attach to pipe without fasteners or adhesive.

C. Self-Adhesive Pipe Labels: Printed plastic with contact-type, permanent-adhesive backing.

D. Pipe Label Contents: Include identification of piping service using same designations or abbreviations as used on Drawings, pipe size, and an arrow indicating flow direction.

1. Flow-Direction Arrows: Integral with piping system service lettering to accommodate both directions, or as separate unit on each pipe label to indicate flow direction.
2. Lettering Size: At least 1-1/2 inches (38 mm) high.

2.3 DUCT LABELS

A. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/16 inch (1.6 mm) thick, and having predrilled holes for attachment hardware.

B. Letter Color: Black.

C. Background Color: White.

D. Maximum Temperature: Able to withstand temperatures up to 160 deg F (71 deg C).

E. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).

F. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.

G. Fasteners: Stainless-steel rivets or self-tapping screws.

H. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

I. Duct Label Contents: Include identification of duct service using same designations or abbreviations as used on Drawings, duct size, and an arrow indicating flow direction.

1. Flow-Direction Arrows: Integral with duct system service lettering to accommodate both directions, or as separate unit on each duct label to indicate flow direction.
2. Lettering Size: At least 1-1/2 inches (38 mm) high.

2.4 STENCILS

A. Stencils: Prepared with letter sizes according to ASME A13.1 for piping; minimum letter height of 1-1/4 inches (32 mm) for ducts; and minimum letter height of 3/4 inch (19 mm) for access panel and door labels, equipment labels, and similar operational instructions.

1. Stencil Material: Fiberboard or metal.
2. Stencil Paint: Exterior, gloss, acrylic enamel black unless otherwise indicated. Paint may be in pressurized spray-can form.
3. Identification Paint: Exterior, acrylic enamel in colors according to ASME A13.1 unless otherwise indicated.

2.5 VALVE TAGS

A. Valve Tags: Stamped or engraved with 1/4-inch (6.4-mm) letters for piping system abbreviation and 1/2-inch (13-mm) numbers.

1. Tag Material: Stainless steel, 0.025-inch (0.64-mm) minimum thickness, and having predrilled or stamped holes for attachment hardware.
2. Fasteners: Brass wire-link or beaded chain; or S-hook.

B. Valve Schedules: For each piping system, on 8-1/2-by-11-inch (A4) bond paper. Tabulate valve number, piping system, system abbreviation (as shown on valve tag), location of valve (room or space), normal-operating position (open, closed, or modulating), and variations for identification. Mark valves for emergency shutoff and similar special uses.

1. Valve-tag schedule shall be included in operation and maintenance data.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean piping and equipment surfaces of substances that could impair bond of identification devices, including dirt, oil, grease, release agents, and incompatible primers, paints, and encapsulants.

3.2 EQUIPMENT LABEL INSTALLATION

A. Install or permanently fasten labels on each major item of mechanical equipment.

B. Locate equipment labels where accessible and visible.

3.3 PIPE LABEL INSTALLATION

A. Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:

1. Near each valve and control device.
2. Near each branch connection, excluding short takeoffs for fixtures and terminal units. Where flow pattern is not obvious, mark each pipe at branch.
3. Near penetrations through walls, floors, ceilings, and inaccessible enclosures.
4. At access doors, manholes, and similar access points that permit view of concealed piping.
5. Near major equipment items and other points of origination and termination.
6. Spaced at maximum intervals of 50 feet (15 m) along each run. Reduce intervals to 25 feet (7.6 m) in areas of congested piping and equipment.

7. On piping above removable acoustical ceilings. Omit intermediately spaced labels.

3.4 DUCT LABEL INSTALLATION

A. Install self-adhesive duct labels with permanent adhesive on air ducts in the following color codes:

B. Stenciled Duct Label Option: Stenciled labels, showing service and flow direction, may be provided instead of plastic-laminated duct labels, at Installer's option, if lettering larger than 1 inch (25 mm) high is needed for proper identification because of distance from normal location of required identification.

C. Locate labels near points where ducts enter into concealed spaces and at maximum intervals of 50 feet (15 m) in each space where ducts are exposed or concealed by removable ceiling system.

3.5 VALVE-TAG INSTALLATION

A. Install tags on valves and control devices in piping systems, except check valves; valves within factory-fabricated equipment units; shutoff valves; faucets; convenience and lawn-watering hose connections; and HVAC terminal devices and similar roughing-in connections of end-use fixtures and units. List tagged valves in a valve schedule.

B. Valve-Tag Application Schedule: Tag valves according to size, shape, and color scheme and with captions similar to those indicated in the following subparagraphs:

END OF SECTION 15077

SECTION 15080 - MECHANICAL INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes mechanical insulation for duct, equipment, and pipe, including the following:

1. Insulation Materials:

    a. Phenolic Foam.
    b. Cellular glass.
    c. Flexible elastomeric.
    d. Mineral fiber.

2. Fire-rated insulation systems.
3. Insulating cements.
4. Adhesives.
5. Mastics.
6. Lagging adhesives.
7. Sealants.
8. Factory-applied jackets.
9. Field-applied fabric-reinforcing mesh.
10. Field-applied cloths.
11. Field-applied jackets.
12. Tapes.
13. Securements.
14. Corner angles.

B. Related Sections include the following:

1. Division 2 Section "Hydronic Distribution" for loose-fill pipe insulation in underground piping outside the building.

1.3 DEFINITIONS

A. ASJ: All-service jacket.

B. FSK: Foil, scrim, kraft paper.

C. FSP: Foil, scrim, polyethylene.

D. PVDC: Polyvinylidene chloride.

E. SSL: Self-sealing lap.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated, identify thermal conductivity, thickness, and jackets (both factory and field applied, if any).

B. Shop Drawings: Show details for the following:

1. Application of protective shields, saddles, and inserts at hangers for each type of insulation and hanger.
2. Insulation application at pipe expansion joints for each type of insulation.
3. Insulation application at elbows, fittings, flanges, valves, and specialties for each type of insulation.
4. Removable insulation at piping specialties, equipment connections, and access panels.
5. Application of field-applied jackets.
6. Application at linkages of control devices.
7. Field application for each equipment type.

C. Installer Certificates: Signed by Contractor certifying that installers comply with requirements.

D. Material Test Reports: From a qualified testing agency acceptable to authorities having jurisdiction indicating, interpreting, and certifying test results for compliance of insulation materials, sealers, attachments, cements, and jackets, with requirements indicated. Include dates of tests and test methods employed.

E. Field quality-control inspection reports.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Skilled mechanics who have successfully completed an apprenticeship program or another craft training program certified by the Department of Labor, Bureau of Apprenticeship and Training.

B. Fire-Test-Response Characteristics: Insulation and related materials shall have fire-test-response characteristics indicated, as determined by testing identical products per ASTM E 84, by a testing and inspecting agency acceptable to authorities having jurisdiction. Factory label insulation and jacket materials and adhesive, mastic, and cement material containers, with appropriate markings of applicable testing and inspecting agency.

1. Insulation Installed Indoors: Flame-spread index of 25 or less, and smoke-developed index of 50 or less.
2. Insulation Installed Outdoors: Flame-spread index of 75 or less, and smoke-developed index of 150 or less.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packaging: Insulation material containers shall be marked by manufacturer with appropriate ASTM standard designation, type and grade, and maximum use temperature.

1.7 COORDINATION

A. Coordinate size and location of supports, hangers, and insulation shields specified in Division 15 Section "Hangers and Supports."

B. Coordinate clearance requirements with piping Installer for piping insulation application, duct Installer for duct insulation application, and equipment Installer for equipment insulation application. Before preparing piping and ductwork Shop Drawings, establish and maintain clearance requirements for installation of insulation and field-applied jackets and finishes and for space required for maintenance.

1.8 SCHEDULING

A. Schedule insulation application after pressure testing systems. Insulation application may begin on segments that have satisfactory test results.

B. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.
2. Products: Subject to compliance with requirements, provide one of the products specified.
3. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
4. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 INSULATION MATERIALS

A. Refer to Part 3 schedule articles for requirements about where insulating materials shall be applied.

B. Products shall not contain asbestos, lead, mercury, or mercury compounds.

C. Products that come in contact with stainless steel shall have a leachable chloride content of less than 50 ppm when tested according to ASTM C 871.

D. Insulation materials for use on austenitic stainless steel shall be qualified as acceptable according to ASTM C 795.

E. Foam insulation materials shall not use CFC or HCFC blowing agents in the manufacturing process.

F. Cellular Glass: Inorganic, incombustible, foamed or cellulated glass with annealed, rigid, hermetically sealed cells. Factory-applied jacket requirements are specified in Part 2 "Factory-Applied Jackets" Article.

1. Available Products:

a. ACS.
b. Pittsburgh Corning Corporation; Foamglas Super K.

2. Preformed Pipe Insulation without Jacket: Comply with ASTM C 552, Type II, Class 1.

3. Preformed Pipe Insulation with Factory-Applied ASJ: Comply with ASTM C 552, Type II, Class 2.
4. Factory fabricate shapes according to ASTM C 450 and ASTM C 585.

G. Flexible Elastomeric: Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C 534, Type I for tubular materials and Type II for sheet materials.

1. Available Products:

a. Aeroflex USA Inc.; Aerocel.
b. Armacell LLC; AP Armaflex.
c. RBX Corporation; Insul-Sheet 1800 and Insul-Tube 180.

H. Mineral-Fiber Blanket Insulation: Mineral or glass fibers bonded with a thermosetting resin. Comply with ASTM C 553, Type II and ASTM C 1290, Type III with factory-applied FSK jacket. Factory-applied jacket requirements are specified in Part 2 "Factory-Applied Jackets" Article.

1. Available Products:

a. CertainTeed Corp.; Duct Wrap.
b. Johns Manville; Microlite.
c. Knauf Insulation; Duct Wrap.
d. Owens Corning; All-Service Duct Wrap.

I. Mineral-Fiber Board Insulation: Mineral or glass fibers bonded with a thermosetting resin. Comply with ASTM C 612, Type IA or Type IB. For equipment applications, provide insulation with factory-applied ASJ. Factory-applied jacket requirements are specified in Part 2 "Factory-Applied Jackets" Article.

1. Available Products:

a. CertainTeed Corp.; Commercial Board.
b. Johns Manville; 800 Series Spin-Glas.
c. Knauf Insulation; Insulation Board.
d. Owens Corning; Fiberglas 700 Series.

J. Mineral-Fiber, Preformed Pipe Insulation:

1. Available Products:
a. Johns Manville; Micro-Lok.
b. Knauf Insulation; 1000(Pipe Insulation.
c. Owens Corning; Fiberglas Pipe Insulation.

2. Type I, 850 deg F (454 deg C) Materials: Mineral or glass fibers bonded with a thermosetting resin. Comply with ASTM C 547, Type I, Grade A, with factory-applied ASJ. Factory-applied jacket requirements are specified in Part 2 "Factory-Applied Jackets" Article.

2.3 FIRE-RATED INSULATION SYSTEMS

A. Fire-Rated Blanket: High-temperature, flexible, blanket insulation with FSK jacket that is UL tested and certified to provide a 1 or 2-hour fire rating, as required.

1. Products:

a. CertainTeed Corp.; FlameChek.
b. Johns Manville; Firetemp Wrap.
c. Thermal Ceramics; FireMaster Duct Wrap.
d. 3M; Fire Barrier Wrap Products.

2.4 INSULATING CEMENTS

A. Mineral-Fiber Insulating Cement: Comply with ASTM C 195.

B. Expanded or Exfoliated Vermiculite Insulating Cement: Comply with ASTM C 196.

C. Mineral-Fiber, Hydraulic-Setting Insulating and Finishing Cement: Comply with ASTM C 449/C 449M.

2.5 ADHESIVES

A. Materials shall be compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated, unless otherwise indicated.

B. Cellular-Glass Adhesive: Solvent-based resin adhesive, with a service temperature range of minus 75 to plus 300 deg F (minus 59 to plus 149 deg C).

C. Flexible Elastomeric Adhesive: Comply with MIL-A-24179A, Type II, Class I.

D. Mineral-Fiber Adhesive: Comply with MIL-A-3316C, Class 2, Grade A.

E. ASJ Adhesive, and FSK Jacket Adhesive: Comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints.

F. PVC Jacket Adhesive: Compatible with PVC jacket.

1. Products:

2.6 MASTICS

A. Materials shall be compatible with insulation materials, jackets, and substrates; comply with MIL-C-19565C, Type II.

B. Vapor-Barrier Mastic: Solvent based; suitable for indoor use on below ambient services.

1. Products:

a. Childers Products, Division of ITW; CP-30.
b. Foster Products Corporation, H. B. Fuller Company; 30-35.
c. ITW TACC, Division of Illinois Tool Works; CB-25.
d. Marathon Industries, Inc.; 501.
e. Mon-Eco Industries, Inc.; 55-10.

2. Water-Vapor Permeance: ASTM F 1249, 0.05 perm (0.03 metric perm) at 35-mil (0.9-mm) dry film thickness.
3. Service Temperature Range: 0 to 180 deg F (Minus 18 to plus 82 deg C).
4. Solids Content: ASTM D 1644, 44 percent by volume and 62 percent by weight.
5. Color: White.

2.7 LAGGING ADHESIVES

A. Description: Comply with MIL-A-3316C Class I, Grade A and shall be compatible with insulation materials, jackets, and substrates.

1. Fire-resistant, water-based lagging adhesive and coating for use indoors to adhere fire-resistant lagging cloths over duct, equipment, and pipe insulation.
2. Service Temperature Range: Minus 50 to plus 180 deg F (Minus 46 to plus 82 deg C).
3. Color: White.

2.8 SEALANTS

A. Joint Sealants:

1. Joint Sealants for Cellular-Glass, Products:

a. Childers Products, Division of ITW; CP-76.
b. Pittsburgh Corning Corporation; Pittseal 444.

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Permanently flexible, elastomeric sealant.
4. Service Temperature Range: Minus 100 to plus 300 deg F (Minus 73 to plus 149 deg C).
5. Color: White or gray.

B. FSK and Metal Jacket Flashing Sealants:

1. Materials shall be compatible with insulation materials, jackets, and substrates.
2. Fire- and water-resistant, flexible, elastomeric sealant.
3. Service Temperature Range: Minus 40 to plus 250 deg F (Minus 40 to plus 121 deg C).
4. Color: Aluminum.

C. ASJ Flashing Sealants, and Vinyl, PVDC, and PVC Jacket Flashing Sealants:

1. Materials shall be compatible with insulation materials, jackets, and substrates.
2. Fire- and water-resistant, flexible, elastomeric sealant.
3. Service Temperature Range: Minus 40 to plus 250 deg F (Minus 40 to plus 121 deg C).
4. Color: White.

2.9 FACTORY-APPLIED JACKETS

A. Insulation system schedules indicate factory-applied jackets on various applications. When factory-applied jackets are indicated, comply with the following:

1. ASJ: White, kraft-paper, fiberglass-reinforced scrim with aluminum-foil backing; complying with ASTM C 1136, Type I.
2. ASJ-SSL: ASJ with self-sealing, pressure-sensitive, acrylic-based adhesive covered by a removable protective strip; complying with ASTM C 1136, Type I.
3. FSK Jacket: Aluminum-foil, fiberglass-reinforced scrim with kraft-paper backing; complying with ASTM C 1136, Type II.
4. FSP Jacket: Aluminum-foil, fiberglass-reinforced scrim with polyethylene backing; complying with ASTM C 1136, Type II.

2.10 FIELD-APPLIED FABRIC-REINFORCING MESH

A. Woven Glass-Fiber Fabric for Pipe Insulation: Approximately 2 oz./sq. yd. (68 g/sq. m) with a thread count of 10 strands by 10 strands/sq. inch (4 strands by 4 strands/sq. mm) for covering pipe and pipe fittings.

B. Woven Glass-Fiber Fabric for Duct and Equipment Insulation: Approximately 6 oz./sq. yd. (203 g/sq. m) with a thread count of 5 strands by 5 strands/sq. inch (2 strands by 2 strands/sq. mm) for covering equipment.

2.11 FIELD-APPLIED CLOTHS

A. Woven Glass-Fiber Fabric: Comply with MIL-C-20079H, Type I, plain weave, and presized a minimum of 8 oz./sq. yd. (271 g/sq. m).

2.12 FIELD-APPLIED JACKETS

A. Field-applied jackets shall comply with ASTM C 921, Type I, unless otherwise indicated.

B. FSK Jacket: Aluminum-foil-face, fiberglass-reinforced scrim with kraft-paper backing.

C. PVC Jacket: High-impact-resistant, UV-resistant PVC complying with ASTM D 1784, Class 16354-C; thickness 20 mil; roll stock ready for shop or field cutting and forming. Thickness is indicated in field-applied jacket schedules.

1. Adhesive: As recommended by jacket material manufacturer.
2. Color: White.
3. Factory-fabricated fitting covers to match jacket if available; otherwise, field fabricate.

    a. Shapes: 45- and 90-degree, short- and long-radius elbows, tees, valves, flanges, unions, reducers, end caps, soil-pipe hubs, traps, mechanical joints, and P-trap and supply covers for lavatories.

4. Factory-fabricated tank heads and tank side panels.

D. Metal Jacket:

1. Aluminum Jacket: Comply with ASTM B 209 (ASTM B 209M), Alloy 3003, 3005, 3105 or 5005, Temper H-14.

    a. Sheet and roll stock ready for shop or field sizing.

b. Thickness: 0.020” Smooth.
c. Moisture Barrier for Indoor Applications: 1-mil- thick, heat-bonded polyethylene and kraft paper.
d. Moisture Barrier for Outdoor Applications: 3-mil- thick, heat-bonded polyethylene and kraft paper.
e. Factory-Fabricated Fitting Covers:

1) Same material, finish, and thickness as jacket.
2) Preformed 2-piece or gore, 45- and 90-degree, short- and long-radius elbows.
3) Tee covers.
4) Flange and union covers.
5) End caps.
6) Beveled collars.
7) Valve covers.
8) Field fabricate fitting covers only if factory-fabricated fitting covers are not available.

2.13 TAPES

A. ASJ Tape: White vapor-retarder tape matching factory-applied jacket with acrylic adhesive, complying with ASTM C 1136 and UL listed.

1. Width: 3 inches.
2. Thickness: 11.5 mils.
3. Adhesion: 90 ounces force/inch in width.
4. Elongation: 2 percent.
5. Tensile Strength: 40 lbf/inch in width.
6. ASJ Tape Disks and Squares: Precut disks or squares of ASJ tape.

B. FSK Tape: Foil-face, vapor-retarder tape matching factory-applied jacket with acrylic adhesive; complying with ASTM C 1136 and UL listed.

1. Width: 3 inches.
2. Thickness: 6.5 mils.
3. Adhesion: 90 ounces force/inch in width.
4. Elongation: 2 percent.
5. Tensile Strength: 40 lbf/inch in width.
6. FSK Tape Disks and Squares: Precut disks or squares of FSK tape.

C. PVC Tape: White vapor-retarder tape matching field-applied PVC jacket with acrylic adhesive. Suitable for indoor and outdoor applications.

1. Width: 2 inches.
2. Thickness: 6 mils.

3. Adhesion: 64 ounces force/inch in width.
4. Elongation: 500 percent.
5. Tensile Strength: 18 lbf/inch in width.

D. Aluminum-Foil Tape: Vapor-retarder tape with acrylic adhesive and UL listed.

1. Width: 2 inches.
2. Thickness: 3.7 mils.
3. Adhesion: 100 ounces force/inch in width.
4. Elongation: 5 percent.
5. Tensile Strength: 34 lbf/inch in width.

2.14 SECUREMENTS

A. Bands:
1. Aluminum: ASTM B 209, Alloy 3003, 3005, 3105, or 5005; Temper H-14, 0.020 inch thick, 3/4 inch wide with wing or closed seal.
2. Springs: Twin spring set constructed of stainless steel with ends flat and slotted to accept metal bands. Spring size determined by manufacturer for application.

B. Insulation Pins and Hangers:

1. Capacitor-Discharge-Weld Pins: Copper- or zinc-coated steel pin, fully annealed for capacitor-discharge welding, 0.106-inch- diameter shank, length to suit depth of insulation indicated.

2. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch- thick, galvanized-steel sheet, with beveled edge sized as required to hold insulation securely in place but not less than 1-1/2 inches in diameter.

a. Protect ends with capped self-locking washers incorporating a spring steel insert to ensure permanent retention of cap in exposed locations.

C. Staples: Outward-clinching insulation staples, nominal 3/4-inch- wide, stainless steel or Monel.

D. Wire: 0.080-inch nickel-copper alloy.

2.15 CORNER ANGLES

A. PVC Corner Angles: 30 mils thick, minimum 1 by 1 inch, PVC according to ASTM D 1784, Class 16354-C. White or color-coded to match adjacent surface.

B. Aluminum Corner Angles: 0.040 inch thick, minimum 1 by 1 inch, aluminum according to ASTM B 209, Alloy 3003, 3005, 3105 or 5005; Temper H-14.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions for compliance with requirements for installation and other conditions affecting performance of insulation application.

1. Verify that systems and equipment to be insulated have been tested and are free of defects.
2. Verify that surfaces to be insulated are clean and dry.
3. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Preparation: Clean and dry surfaces to receive insulation. Remove materials that will adversely affect insulation application.

B. Mix insulating cements with clean potable water; if insulating cements are to be in contact with stainless-steel surfaces, use demineralized water.

3.3 COMMON INSTALLATION REQUIREMENTS

A. Install insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of equipment, ducts and fittings, and piping including fittings, valves, and specialties.

B. Install insulation materials, forms, vapor barriers or retarders, jackets, and thicknesses required for each item of equipment, duct system, and pipe system as specified in insulation system schedules.

C. Install accessories compatible with insulation materials and suitable for the service. Install accessories that do not corrode, soften, or otherwise attack insulation or jacket in either wet or dry state.

D. Install insulation with longitudinal seams at top and bottom of horizontal runs.

E. Install multiple layers of insulation with longitudinal and end seams staggered.

F. Do not weld brackets, clips, or other attachment devices to piping, fittings, and specialties.

G. Keep insulation materials dry during application and finishing.

H. Install insulation with tight longitudinal seams and end joints. Bond seams and joints with adhesive recommended by insulation material manufacturer.

I. Install insulation with least number of joints practical.

J. Where vapor barrier is indicated, seal joints, seams, and penetrations in insulation at hangers, supports, anchors, and other projections with vapor-barrier mastic.

1. Install insulation continuously through hangers and around anchor attachments.
2. For insulation application where vapor barriers are indicated, extend insulation on anchor legs from point of attachment to supported item to point of attachment to structure. Taper and seal ends at attachment to structure with vapor-barrier mastic.
3. Install insert materials and install insulation to tightly join the insert. Seal insulation to insulation inserts with adhesive or sealing compound recommended by insulation material manufacturer.
4. Cover inserts with jacket material matching adjacent pipe insulation. Install shields over jacket, arranged to protect jacket from tear or puncture by hanger, support, and shield.

K. Apply adhesives, mastics, and sealants at manufacturer's recommended coverage rate and wet and dry film thicknesses.

L. Install insulation with factory-applied jackets as follows:

1. Draw jacket tight and smooth.
2. Cover circumferential joints with 3-inch- wide strips, of same material as insulation jacket. Secure strips with adhesive and outward clinching staples along both edges of strip, spaced 4 inches o.c.
3. Overlap jacket longitudinal seams at least 1-1/2 inches. Install insulation with longitudinal seams at bottom of pipe. Clean and dry surface to receive self-sealing lap. Staple laps with outward clinching staples along edge at 4 inches o.c.

    a. For below ambient services, apply vapor-barrier mastic over staples.

4. Cover joints and seams with tape as recommended by insulation material manufacturer to maintain vapor seal.
5. Where vapor barriers are indicated, apply vapor-barrier mastic on seams and joints and at ends adjacent to duct and pipe flanges and fittings.

M. Cut insulation in a manner to avoid compressing insulation more than 75 percent of its nominal thickness.

N. Finish installation with systems at operating conditions. Repair joint separations and cracking due to thermal movement.

O. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.

P. For above ambient services, do not install insulation to the following:

1. Vibration-control devices.
2. Testing agency labels and stamps.
3. Nameplates and data plates.
4. Manholes.
5. Handholes.
6. Cleanouts.

3.4 PENETRATIONS

A. Insulation Installation at Roof Penetrations: Install insulation continuously through roof penetrations.

1. Seal penetrations with flashing sealant.
2. For applications requiring only indoor insulation, terminate insulation above roof surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside roof flashing at least 2 inches below top of roof flashing.
4. Seal jacket to roof flashing with flashing sealant.

B. Insulation Installation at Below-Grade Exterior Wall Penetrations: Terminate insulation flush with sleeve seal. Seal terminations with flashing sealant.

C. Insulation Installation at Aboveground Exterior Wall Penetrations: Install insulation continuously through wall penetrations.

1. Seal penetrations with flashing sealant.

2. For applications requiring only indoor insulation, terminate insulation inside wall surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside wall flashing and overlap wall flashing at least 2 inches.
4. Seal jacket to wall flashing with flashing sealant.

D. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.

E. Insulation Installation at Fire-Rated Wall and Partition Penetrations: Install insulation continuously through penetrations of fire-rated walls and partitions. Terminate insulation at fire damper sleeves for fire-rated wall and partition penetrations. Externally insulate damper sleeves to match adjacent insulation and overlap duct insulation at least 2 inches.

1. Firestopping and fire-resistive joint sealers are specified in Division 7 Section "Through-Penetration Firestop Systems."

F. Insulation Installation at Floor Penetrations:

1. Duct: Install insulation continuously through floor penetrations that are not fire rated. For penetrations through fire-rated assemblies, terminate insulation at fire damper sleeves and externally insulate damper sleeve beyond floor to match adjacent duct insulation. Overlap damper sleeve and duct insulation at least 2 inches.
2. Pipe: Install insulation continuously through floor penetrations.
3. Seal penetrations through fire-rated assemblies according to Division 7 Section "Through-Penetration Firestop Systems."

3.5 DUCT AND PLENUM INSULATION INSTALLATION

A. Blanket Insulation Installation on Ducts and Plenums: Secure with adhesive and insulation pins.

1. Apply adhesives according to manufacturer's recommended coverage rates per unit area, for 50 percent coverage of duct and plenum surfaces.
2. Apply adhesive to entire circumference of ducts and to all surfaces of fittings and transitions.
3. Install capacitor-discharge-weld pins and speed washers on sides and bottom of horizontal ducts and sides of vertical ducts as follows:

a. On duct sides with dimensions 18 inches and smaller, place pins along longitudinal centerline of duct. Space 3 inches maximum from insulation end joints, and 16 inches o.c.
b. On duct sides with dimensions larger than 18 inches, place pins 16 inches o.c. each way, and 3 inches maximum from insulation joints. Install additional pins to hold insulation tightly against surface at cross bracing.

3.6 EQUIPMENT, TANK, AND VESSEL INSULATION INSTALLATION

A. Secure insulation with adhesive and anchor pins and speed washers.

1. Apply adhesives according to manufacturer's recommended coverage rates per unit area, for 50 percent coverage of tank and vessel surfaces.
2. Groove and score insulation materials to fit as closely as possible to equipment, including contours. Bevel insulation edges for cylindrical surfaces for tight joints. Stagger end joints.
3. Protect exposed corners with secured corner angles.
4. Install adhesively attached or self-sticking insulation hangers and speed washers on sides of tanks and vessels as follows:

    a. Do not weld anchor pins to ASME-labeled pressure vessels.
    b. Select insulation hangers and adhesive that are compatible with service temperature and with substrate.
    c. On tanks and vessels, maximum anchor-pin spacing is 3 inches from insulation end joints, and 16 inches o.c. in both directions.
    d. Do not overcompress insulation during installation.
    e. Cut and miter insulation segments to fit curved sides and domed heads of tanks and vessels.
    f. Impale insulation over anchor pins and attach speed washers.
    g. Cut excess portion of pins extending beyond speed washers or bend parallel with insulation surface. Cover exposed pins and washers with tape matching insulation facing.

5. Secure each layer of insulation with stainless-steel or aluminum bands. Select band material compatible with insulation materials.
6. Where insulation hangers on equipment and vessels are not permitted or practical and where insulation support rings are not provided, install a girdle network for securing insulation. Stretch prestressed aircraft cable around the diameter of vessel and make taut with clamps, turnbuckles, or breather springs. Place one circumferential girdle around equipment approximately 6 inches from each end. Install wire or cable between two circumferential girdles 12 inches o.c. Install a wire ring around each end and around outer periphery of center openings, and stretch prestressed

aircraft cable radially from the wire ring to nearest circumferential girdle. Install additional circumferential girdles along the body of equipment or tank at a minimum spacing of 48 inches o.c. Use this network for securing insulation with tie wire or bands.

7. Stagger joints between insulation layers at least 3 inches.
8. Install insulation in removable segments on equipment access doors, manholes, handholes, and other elements that require frequent removal for service and inspection.
9. Bevel and seal insulation ends around manholes, handholes, ASME stamps, and nameplates.
10. For equipment with surface temperatures below ambient, apply mastic to open ends, joints, seams, breaks, and punctures in insulation.

B. Flexible Elastomeric Thermal Insulation Installation for Tanks and Vessels: Install insulation over entire surface of tanks and vessels.

1. Apply 100 percent coverage of adhesive to surface with manufacturer's recommended adhesive.
2. Seal longitudinal seams and end joints.

C. Insulation Installation on Pumps:

1. Fabricate metal boxes lined with insulation. Fit boxes around pumps and coincide box joints with splits in pump casings. Fabricate joints with outward bolted flanges. Bolt flanges on 6-inch centers, starting at corners. Install 3/8-inch- diameter fasteners with wing nuts. Alternatively, secure the box sections together using a latching mechanism.
2. Fabricate boxes from galvanized steel, at least 0.040 inch thick.
3. For below ambient services, install a vapor barrier at seams, joints, and penetrations. Seal between flanges with replaceable gasket material to form a vapor barrier.

3.7 GENERAL PIPE INSULATION INSTALLATION

A. Requirements in this Article generally apply to all insulation materials except where more specific requirements are specified in various pipe insulation material installation articles.

B. Insulation Installation on Fittings, Valves, Strainers, Flanges, and Unions:

1. Install insulation over fittings, valves, strainers, flanges, unions, and other specialties with continuous thermal and vapor-retarder integrity, unless otherwise indicated.
2. Insulate pipe elbows using preformed fitting insulation or mitered fittings made from same material and density as adjacent pipe insulation. Each

piece shall be butted tightly against adjoining piece and bonded with adhesive. Fill joints, seams, voids, and irregular surfaces with insulating cement finished to a smooth, hard, and uniform contour that is uniform with adjoining pipe insulation.

3. Insulate tee fittings with preformed fitting insulation or sectional pipe insulation of same material and thickness as used for adjacent pipe. Cut sectional pipe insulation to fit. Butt each section closely to the next and hold in place with tie wire. Bond pieces with adhesive.
4. Insulate valves using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker. For valves, insulate up to and including the bonnets, valve stuffing-box studs, bolts, and nuts. Fill joints, seams, and irregular surfaces with insulating cement.
5. Insulate strainers using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker. Fill joints, seams, and irregular surfaces with insulating cement. Insulate strainers so strainer basket flange or plug can be easily removed and replaced without damaging the insulation and jacket. Provide a removable reusable insulation cover. For below ambient services, provide a design that maintains vapor barrier.
6. Insulate flanges and unions using a section of oversized preformed pipe insulation. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker.
7. Cover segmented insulated surfaces with a layer of finishing cement and coat with a mastic. Install vapor-barrier mastic for below ambient services and a breather mastic for above ambient services. Reinforce the mastic with fabric-reinforcing mesh. Trowel the mastic to a smooth and well-shaped contour.
8. For services not specified to receive a field-applied jacket except for flexible elastomeric, install fitted PVC cover over elbows, tees, strainers, valves, flanges, and unions. Terminate ends with PVC end caps. Tape PVC covers to adjoining insulation facing using PVC tape.
9. Stencil or label the outside insulation jacket of each union with the word "UNION." Match size and color of pipe labels.

C. Insulate instrument connections for thermometers, pressure gages, pressure temperature taps, test connections, flow meters, sensors, switches, and transmitters on insulated pipes, vessels, and equipment. Shape insulation at these connections by tapering it to and around the connection with insulating cement and finish with finishing cement, mastic, and flashing sealant.

D. Install removable insulation covers at locations indicated. Installation shall conform to the following:

1. Make removable flange and union insulation from sectional pipe insulation of same thickness as that on adjoining pipe. Install same insulation jacket as adjoining pipe insulation.
2. When flange and union covers are made from sectional pipe insulation, extend insulation from flanges or union long at least two times the insulation thickness over adjacent pipe insulation on each side of flange or union. Secure flange cover in place with stainless-steel or aluminum bands. Select band material compatible with insulation and jacket.
3. Construct removable valve insulation covers in same manner as for flanges except divide the two-part section on the vertical center line of valve body.
4. When covers are made from block insulation, make two halves, each consisting of mitered blocks wired to stainless-steel fabric. Secure this wire frame, with its attached insulation, to flanges with tie wire. Extend insulation at least 2 inches over adjacent pipe insulation on each side of valve. Fill space between flange or union cover and pipe insulation with insulating cement. Finish cover assembly with insulating cement applied in two coats. After first coat is dry, apply and trowel second coat to a smooth finish.
5. Unless a PVC jacket is indicated in field-applied jacket schedules, finish exposed surfaces with a metal jacket.

3.8 CELLULAR-GLASS INSULATION INSTALLATION

A. Insulation Installation on Straight Pipes and Tubes:

1. Secure each layer of insulation to pipe with wire or bands and tighten bands without deforming insulation materials.
2. Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
3. For insulation with factory-applied jackets on above ambient services, secure laps with outward clinched staples at 6 inches o.c.
4. For insulation with factory-applied jackets on below ambient services, do not staple longitudinal tabs but secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.

B. Insulation Installation on Pipe Flanges:

1. Install preformed pipe insulation to outer diameter of pipe flange.
2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.

3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with cut sections of cellular-glass block insulation of same thickness as pipe insulation.
4. Install jacket material with manufacturer's recommended adhesive, overlap seams at least 1 inch, and seal joints with flashing sealant.

C. Insulation Installation on Pipe Fittings and Elbows:

1. Install preformed sections of same material as straight segments of pipe insulation when available. Secure according to manufacturer's written instructions.
2. When preformed sections of insulation are not available, install mitered sections of cellular-glass insulation. Secure insulation materials with wire or bands.

D. Insulation Installation on Valves and Pipe Specialties:

1. Install preformed sections of cellular-glass insulation to valve body.
2. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
3. Install insulation to flanges as specified for flange insulation application.

3.9 FLEXIBLE ELASTOMERIC INSULATION INSTALLATION

A. Seal longitudinal seams and end joints with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

B. Insulation Installation on Pipe Flanges:

1. Install pipe insulation to outer diameter of pipe flange.
2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.
3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with cut sections of sheet insulation of same thickness as pipe insulation.
4. Secure insulation to flanges and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

C. Insulation Installation on Pipe Fittings and Elbows:

1. Install mitered sections of pipe insulation.

2. Secure insulation materials and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

D. Insulation Installation on Valves and Pipe Specialties:

1. Install preformed valve covers manufactured of same material as pipe insulation when available.
2. When preformed valve covers are not available, install cut sections of pipe and sheet insulation to valve body. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
3. Install insulation to flanges as specified for flange insulation application.
4. Secure insulation to valves and specialties and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

3.10 MINERAL-FIBER INSULATION INSTALLATION

A. Insulation Installation on Straight Pipes and Tubes:

1. Secure each layer of preformed pipe insulation to pipe with wire or bands and tighten bands without deforming insulation materials.
2. Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
3. For insulation with factory-applied jackets on above ambient surfaces, secure laps with outward clinched staples at 6 inches o.c.
4. For insulation with factory-applied jackets on below ambient surfaces, do not staple longitudinal tabs but secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.

B. Insulation Installation on Pipe Flanges:

1. Install preformed pipe insulation to outer diameter of pipe flange.
2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.
3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with mineral-fiber blanket insulation.
4. Install jacket material with manufacturer's recommended adhesive, overlap seams at least 1 inch, and seal joints with flashing sealant.

C. Insulation Installation on Pipe Fittings and Elbows:

1. Install preformed sections of same material as straight segments of pipe insulation when available.
2. When preformed insulation elbows and fittings are not available, install mitered sections of pipe insulation, to a thickness equal to adjoining pipe insulation. Secure insulation materials with wire or bands.

D. Insulation Installation on Valves and Pipe Specialties:

1. Install preformed sections of same material as straight segments of pipe insulation when available.
2. When preformed sections are not available, install mitered sections of pipe insulation to valve body.
3. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
4. Install insulation to flanges as specified for flange insulation application.

E. Blanket Insulation Installation on Ducts and Plenums: Secure with adhesive and insulation pins.

1. Apply adhesives according to manufacturer's recommended coverage rates per unit area, for 50 percent coverage of duct and plenum surfaces.
2. Apply adhesive to entire circumference of ducts and to all surfaces of fittings and transitions.
3. Install capacitor-discharge-weld pins and speed washers on sides and bottom of horizontal ducts and sides of vertical ducts as follows:

    a. On duct sides with dimensions 18 inches and smaller, place pins along longitudinal centerline of duct. Space 3 inches maximum from insulation end joints, and 16 inches o.c.
    b. On duct sides with dimensions larger than 18 inches, place pins 16 inches o.c. each way, and 3 inches maximum from insulation joints. Install additional pins to hold insulation tightly against surface at cross bracing.
    c. Pins may be omitted from top surface of horizontal, rectangular ducts and plenums.
    d. Do not overcompress insulation during installation.
    e. Impale insulation over pins and attach speed washers.
    f. Cut excess portion of pins extending beyond speed washers or bend parallel with insulation surface. Cover exposed pins and washers with tape matching insulation facing.

4. For ducts and plenums with surface temperatures below ambient, install a continuous unbroken vapor barrier. Create a facing lap for longitudinal seams and end joints with insulation by removing 2 inches (50 mm) from 1 edge and 1 end of insulation segment. Secure laps to adjacent insulation

section with 1/2-inch (13-mm) outward-clinching staples, 1 inch (25 mm) o.c. Install vapor barrier consisting of factory- or field-applied jacket, adhesive, vapor-barrier mastic, and sealant at joints, seams, and protrusions.

a. Repair punctures, tears, and penetrations with tape or mastic to maintain vapor-barrier seal.
b. Install vapor stops for ductwork and plenums operating below 50 deg F (10 deg C) at 18-foot (5.5-m) intervals. Vapor stops shall consist of vapor-barrier mastic applied in a Z-shaped pattern over insulation face, along butt end of insulation, and over the surface. Cover insulation face and surface to be insulated a width equal to 2 times the insulation thickness but not less than 3 inches (75 mm).

5. Overlap unfaced blankets a minimum of 2 inches on longitudinal seams and end joints. At end joints, secure with steel bands spaced a maximum of 18 inches o.c.
6. Install insulation on rectangular duct elbows and transitions with a full insulation section for each surface. Install insulation on round and flat-oval duct elbows with individually mitered gores cut to fit the elbow.
7. Insulate duct stiffeners, hangers, and flanges that protrude beyond insulation surface with 6-inch- wide strips of same material used to insulate duct. Secure on alternating sides of stiffener, hanger, and flange with pins spaced 6 inches o.c.

F. Board Insulation Installation on Ducts and Plenums: Secure with adhesive and insulation pins.

1. Apply adhesives according to manufacturer's recommended coverage rates per unit area, for 50 percent coverage of duct and plenum surfaces.
2. Apply adhesive to entire circumference of ducts and to all surfaces of fittings and transitions.
3. Install capacitor-discharge-weld pins and speed washers on sides and bottom of horizontal ducts and sides of vertical ducts as follows:

a. On duct sides with dimensions 18 inches and smaller, place pins along longitudinal centerline of duct. Space 3 inches maximum from insulation end joints, and 16 inches o.c.
b. On duct sides with dimensions larger than 18 inches, space pins 16 inches o.c. each way, and 3 inches maximum from insulation joints. Install additional pins to hold insulation tightly against surface at cross bracing.
c. Pins may be omitted from top surface of horizontal, rectangular ducts and plenums.
d. Do not overcompress insulation during installation.

e. Cut excess portion of pins extending beyond speed washers or bend parallel with insulation surface. Cover exposed pins and washers with tape matching insulation facing.

4. For ducts and plenums with surface temperatures below ambient, install a continuous unbroken vapor barrier. Create a facing lap for longitudinal seams and end joints with insulation by removing 2 inches (50 mm) from 1 edge and 1 end of insulation segment. Secure laps to adjacent insulation section with 1/2-inch (13-mm) outward-clinching staples, 1 inch (25 mm) o.c. Install vapor barrier consisting of factory- or field-applied jacket, adhesive, vapor-barrier mastic, and sealant at joints, seams, and protrusions.

   a. Repair punctures, tears, and penetrations with tape or mastic to maintain vapor-barrier seal.
   b. Install vapor stops for ductwork and plenums operating below 50 deg F (10 deg C) at 18-foot (5.5-m) intervals. Vapor stops shall consist of vapor-barrier mastic applied in a Z-shaped pattern over insulation face, along butt end of insulation, and over the surface. Cover insulation face and surface to be insulated a width equal to 2 times the insulation thickness but not less than 3 inches (75 mm).

5. Install insulation on rectangular duct elbows and transitions with a full insulation section for each surface. Groove and score insulation to fit as closely as possible to outside and inside radius of elbows. Install insulation on round and flat-oval duct elbows with individually mitered gores cut to fit the elbow.
6. Insulate duct stiffeners, hangers, and flanges that protrude beyond insulation surface with 6-inch- wide strips of same material used to insulate duct. Secure on alternating sides of stiffener, hanger, and flange with pins spaced 6 inches o.c.

3.11 FIELD-APPLIED JACKET INSTALLATION

A. Where glass-cloth jackets are indicated, install directly over bare insulation or insulation with factory-applied jackets.

   1. Draw jacket smooth and tight to surface with 2-inch overlap at seams and joints.
   2. Embed glass cloth between two 0.062-inch- thick coats of lagging adhesive.
   3. Completely encapsulate insulation with coating, leaving no exposed insulation.

B. Where FSK jackets are indicated, install as follows:

1. Draw jacket material smooth and tight.
2. Install lap or joint strips with same material as jacket.
3. Secure jacket to insulation with manufacturer's recommended adhesive.
4. Install jacket with 1-1/2-inch laps at longitudinal seams and 3-inch- wide joint strips at end joints.
5. Seal openings, punctures, and breaks in vapor-retarder jackets and exposed insulation with vapor-barrier mastic.

C. Where PVC jackets are indicated, install with 1-inch overlap at longitudinal seams and end joints; for horizontal applications, install with longitudinal seams along top and bottom of tanks and vessels. Seal with manufacturer's recommended adhesive.

1. Apply two continuous beads of adhesive to seams and joints, one bead under lap and the finish bead along seam and joint edge.

D. Where metal jackets are indicated, install with 2-inch overlap at longitudinal seams and end joints. Overlap longitudinal seams arranged to shed water. Seal end joints with weatherproof sealant recommended by insulation manufacturer. Secure jacket with stainless-steel bands 12 inches o.c. and at end joints.

3.12 FIRE-RATED INSULATION SYSTEM INSTALLATION

A. Where fire-rated insulation system is indicated, secure system to ducts and duct hangers and supports to maintain a continuous UL-listed fire rating.

B. Insulate duct access panels and doors to achieve same fire rating as duct.

C. Install firestopping at penetrations through fire-rated assemblies. Fire-stop systems are specified in Division 7 Section "Through-Penetration Firestop Systems."

3.13 FINISHES

A. Duct, Equipment, and Pipe Insulation with ASJ, Glass-Cloth, or Other Paintable Jacket Material: Paint jacket with paint system identified below and as specified in Division 9 painting Sections. Paint only those items in exposed, public areas.

1. Flat Acrylic Finish: Two finish coats over a primer that is compatible with jacket material and finish coat paint. Add fungicidal agent to render fabric mildew proof.

a. Finish Coat Material: Interior, flat, latex-emulsion size.

B. Flexible Elastomeric Thermal Insulation: After adhesive has fully cured, apply two coats of insulation manufacturer's recommended protective coating.

C. Color: Final color as selected by Architect. Vary first and second coats to allow visual inspection of the completed Work.

D. Do not field paint aluminum or stainless-steel jackets.

3.14 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified independent inspecting agency to perform field inspections and prepare inspection reports.

B. All insulation applications will be considered defective Work if sample inspection reveals noncompliance with requirements. Remove defective Work.

C. Install new insulation and jackets to replace insulation and jackets removed for inspection. Repeat inspection procedures after new materials are installed.

3.15 DUCT INSULATION SCHEDULE, GENERAL

A. Plenums and Ducts Requiring Insulation:

1. Indoor, concealed supply and outdoor air.
2. Indoor, exposed supply and outdoor air.
3. Indoor, concealed return located in nonconditioned space.
4. Indoor, exposed return located in nonconditioned space.
5. Indoor, concealed oven and warewash exhaust.
6. Indoor, exposed oven and warewash exhaust.
7. Indoor, concealed exhaust air.
8. Indoor, exposed exhaust air.
9. Outdoor, concealed supply and return.
10. Outdoor, exposed supply and return.

B. Items Not Insulated:
1. Metal ducts with duct liner of sufficient thickness to comply with energy code and ASHRAE/IESNA 90.1.
2. Factory-insulated flexible ducts.
3. Factory-insulated plenums and casings.
4. Flexible connectors.
5. Vibration-control devices.
6. Factory-insulated access panels and doors.

3.16 INDOOR DUCT AND PLENUM INSULATION SCHEDULE

A. Concealed, round and flat-oval, supply-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

B. Concealed, round and flat-oval, return-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

C. Concealed, round and flat-oval, outdoor-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

D. Concealed, round and flat-oval, exhaust-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

E. Concealed, rectangular, supply-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

F. Concealed, rectangular, return-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

G. Concealed, rectangular, outdoor-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

H. Concealed, rectangular, exhaust-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

I. Concealed, return-air plenum insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.
   2. Mineral-Fiber Board: 1-1/2 inches thick and 2-lb/cu. ft. nominal density.

J. Exposed, round and flat-oval, supply-air duct insulation shall be the following:

   1. Double wall insulated duct.

K. Exposed, round and flat-oval, return-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.
   2. Insulation not required in conditioned spaces.

L. Exposed, round and flat-oval, outdoor-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

M. Exposed, round and flat-oval, exhaust-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and nominal density.
   2. Insulation not required in conditioned spaces.

N. Exposed, rectangular, supply-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.
   2. For rectangular ducts in public spaces, use double-wall insulated duct.

O. Exposed, rectangular, return-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and nominal density.
   2. Insulation not required in conditioned spaces.

P. Exposed, rectangular, outdoor-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.

Q. Exposed, rectangular, exhaust-air duct insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.
   2. Insulation not required in conditioned spaces.

R. Exposed, return-air plenum insulation shall be the following:
   1. Mineral-Fiber Blanket: 2 inches thick and 1.5-lb/cu. ft. nominal density.
   2. Mineral-Fiber Board: 1-1/2 inches thick and 2-lb/cu. ft. nominal density.

3.17 ABOVEGROUND, OUTDOOR DUCT AND PLENUM INSULATION SCHEDULE

A. Insulation materials and thicknesses are identified below. If more than one material is listed for a duct system, selection from materials listed is Contractor's option.

B. Round, flat-oval, and rectangular supply-air duct insulation shall be the following:
   1. Flexible Elastomeric: 3 layers, each 1” thick.

C. Round,flat-oval, and rectangular return-air duct insulation shall be the following:
   1. Flexible Elastomeric: 3 layers, each 1” thick.

3.18 EQUIPMENT INSULATION SCHEDULE

A. Insulation materials and thicknesses are identified below. If more than one material is listed for a type of equipment, selection from materials listed is Contractor's option.

B. Insulate indoor and outdoor equipment in paragraphs below that is not factory insulated.

C. Chillers: Insulate cold surfaces on chillers, including, but not limited to, evaporator bundles, suction piping, compressor inlets, tube sheets, water boxes, and nozzles with the following:
   1. Flexible Elastomeric: 1 inch thick.

D. Heat-exchanger (water-to-water for cooling service) insulation shall be the following:
   1. Flexible Elastomeric: 1 inch thick.

E. Chilled-water pump insulation shall be the following:

   1. Cellular Glass: 3 inches thick.

   2. Phenolic Foam: 2 inches thick.

F. Condenser-water pump insulation shall be the following:
   1. Not applicable.

G. Domestic water pump insulation shall be the following:
   1. Not applicable.

H. Heating-hot-water pump insulation shall be the following:
   1. Cellular Glass: 3 inches thick.

I. Chilled-water expansion/compression tank insulation shall be the following:
   1. Flexible Elastomeric: 1 inch thick.

J. Chilled-water air-separator insulation shall be the following:
   1. Flexible Elastomeric: 1 inch thick.

K. Domestic hot-water storage tank insulation shall be the following:

   1. Mineral-Fiber Board: 4 inches thick and 2-lb/cu. ft. nominal density.

L. Thermal storage tank (brine, water, ice) insulation shall be the following:

   1. Cellular Glass: 4 inches thick.

3.19 PIPING INSULATION SCHEDULE, GENERAL

A. Acceptable preformed pipe and tubular insulation materials and thicknesses are identified for each piping system and pipe size range. If more than one material is listed for a piping system, selection from materials listed is Contractor's option.

B. Items Not Insulated: Unless otherwise indicated, do not install insulation on the following:

1. Fire-suppression piping.
2. Drainage piping located in crawl spaces.
3. Below-grade piping.
4. Chrome-plated pipes and fittings unless there is a potential for personnel injury.

3.20 INDOOR PIPING INSULATION SCHEDULE

A. Domestic Cold Water:

1. Insulation shall be the following:
   a. Mineral-Fiber Pipe Insulation, Type I: 1/2 inch thick.

B. Domestic Hot and Recirculated Hot Water:

1. Insulation shall be the following:
   a. Mineral-Fiber Pipe Insulation, Type I: 1 inch thick.

C. Domestic Chilled Water (Potable):

1. All Pipe Sizes: Insulation shall be the following:
   a. Mineral-Fiber Pipe Insulation, Type I: 1 inch thick.

D. Stormwater and Overflow:

1. All Pipe Sizes: Insulation shall be the following:
   a. Mineral-Fiber Pipe Insulation, Type I: 1 inch thick.
2. Insulation required only on horizontal runs.

E. Roof Drain and Overflow Drain Bodies:

1. All Pipe Sizes: Insulation shall be the following:
   a. Mineral-Fiber Pipe Insulation, Type I: 1 inch thick.

F. Condensate and Equipment Drain Water below 60 Deg F:

1. All Pipe Sizes: Insulation shall be the following:
   a. Flexible Elastomeric: 3/4 inch thick.

G. Floor Drains, Traps, and Sanitary Drain Piping within 10 Feet of Drain Receiving Condensate and Equipment Drain Water below 60 Deg F:

1. All Pipe Sizes: Insulation shall be the following:

a. Mineral-Fiber Pipe Insulation, Type I: 1 inch thick.

H. Chilled Water and Brine, above 40 Deg F:

1. NPS 4 DN 100 and Smaller: Insulation shall be the following:

a. Cellular Glass: 1-1/2 inches thick.

b. Phenolic Foam: 1 inch thick.

2. NPS 6 (DN 150) to NPS 12 (DN300: Insulation shall be the following:

a. Cellular Glass: 2 inches thick.

b. Phenolic Foam: 1 ½ inches thick.

3. NPS 14 (DN350) and Larger: Insulation shall be the following:

a. Cellular Glass: 2 - ½ inches thick.

b. Phenolic Foam: 2 inches thick.

I. Condenser-Water Supply and Return:

1. No insulation.

J. Heating-Hot-Water Supply and Return, 200 Deg F and below:

1. Insulation shall be the following:
a. Mineral-Fiber, Preformed Pipe, Type I: 2 inches thick.

K. Refrigerant Suction and Hot-Gas Piping:

1. All Pipe Sizes: Insulation shall be the following:
a. Flexible Elastomeric: 3/4 inch thick.

3.21 OUTDOOR, ABOVEGROUND PIPING INSULATION SCHEDULE

A. Domestic Water Piping:

1. All Pipe Sizes: Insulation shall be the following:
a. Mineral-Fiber Pipe Insulation, Type I: 1 inch thick.

B. Domestic Hot and Recirculated Hot Water:

1. All Pipe Sizes: Insulation shall be the following:
a. Mineral-Fiber Pipe Insulation, Type I: 1 inches thick.

C. Chilled Water and Brine:

1. All Pipe Sizes: Insulation shall be the following:

a. Cellular Glass: Refer to interior schedule for thickness.

b. Phenolic Foam: Refer to interior schedule for thickness.

D. Condenser-Water Supply and Return:

1. All Pipe Sizes: Insulation not required.

E. Heating-Hot-Water Supply and Return, 200 Deg F and below:

1. All Pipe Sizes: Insulation shall be the following:
a. Mineral-Fiber Pipe Insulation, Type I: 1 ½ inches thick.

F. Refrigerant Suction and Hot-Gas Piping:

1. All Pipe Sizes: Insulation shall be the following:
a. Flexible Elastomeric: 1 inch thick.

3.22 OUTDOOR, UNDERGROUND PIPING INSULATION SCHEDULE

A. Loose-fill insulation, for belowground piping, is specified in Division 2 piping distribution Sections.

B. Chilled Water, All Sizes: Use pre-insulated pipe system.

C. Condenser-Water Supply and Return, All Sizes: Insulation not required. Provide anti corrosion coating as specified in Hydronic Piping Specification.

D. Heating-Hot-Water Supply and Return, All Sizes, 200 Deg F and below: Use pre-insulated pipe system.

3.23 INDOOR, FIELD-APPLIED JACKET SCHEDULE

A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket.

B. If more than one material is listed, selection from materials listed is Contractor's option.

C. Ducts and Plenums, Concealed:

1. None.

D. Ducts and Plenums, Exposed:

1. None.

E. Equipment, Concealed:

1. None.

F. Equipment, Exposed, up to 48 Inches in Diameter or with Flat Surfaces up to 72 Inches:

1. None.

G. Equipment, Exposed, Larger Than 48 Inches in Diameter or with Flat Surfaces Larger Than 72 Inches:

1. None.

H. Piping, Concealed:
1. ASJ – factory.

I. Piping, Exposed:
1. PVC: 20 mils thick.

3.24 OUTDOOR, FIELD-APPLIED JACKET SCHEDULE

A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket.

B. If more than one material is listed, selection from materials listed is Contractor's option.

C. Ducts and Plenums, Concealed:
1. Painted Aluminum, Smooth: 0.020 inch thick.

D. Ducts and Plenums, Exposed:
1. Painted Aluminum, Smooth: 0.020 inch thick.

E. Equipment, Concealed:
1. PVC: 20 mils thick.

F. Equipment, Exposed:

1. Aluminum, Smooth: 0.020 inch thick.

G. Piping, Concealed:
   1. PVC: 20 mils thick.

H. Piping, Exposed:
   1. Aluminum, Smooth: 0.020 inch thick.

3.25 UNDERGROUND, FIELD-INSTALLED INSULATION JACKET

A. For underground direct-buried piping applications, install underground direct-buried jacket over insulation material.

END OF SECTION 15080

SECTION 15110 - VALVES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following general-duty valves:

1. Bronze angle valves.
2. Cast-iron angle valves.
3. Copper-alloy ball valves.
4. Ferrous-alloy ball valves.
5. Ferrous-alloy butterfly valves.
6. Bronze check valves.
7. Gray-iron swing check valves.
8. Ferrous-alloy wafer check valves.
9. Spring-loaded, lift-disc check valves.
10. Bronze gate valves.
11. Cast-iron gate valves.
12. Bronze globe valves.
13. Cast-iron globe valves.
14. Chainwheel actuators.

B. Related Sections include the following:

1. Division 2 piping Sections for general-duty and specialty valves for site construction piping.
2. Division 15 Section "Mechanical Identification" for valve tags and charts.
3. Division 15 piping Sections for specialty valves applicable to those Sections only.

1.3 DEFINITIONS

A. The following are standard abbreviations for valves:

1. CWP: Cold working pressure.

2. EPDM: Ethylene-propylene-diene terpolymer rubber.
3. NBR: Acrylonitrile-butadiene rubber.
4. PTFE: Polytetrafluoroethylene plastic.
5. SWP: Steam working pressure.
6. TFE: Tetrafluoroethylene plastic.

1.4 SUBMITTALS

A. Product Data: For each type of valve indicated. Include body, seating, and trim materials; valve design; pressure and temperature classifications; end connections; arrangement; dimensions; and required clearances. Include list indicating valve and its application. Include rated capacities; shipping, installed, and operating weights; furnished specialties; and accessories.

1.5 QUALITY ASSURANCE

A. ASME Compliance: ASME B31.1 for power piping valves andASME B31.9 for building services piping valves.

1. Exceptions: Domestic hot- and cold-water, sanitary waste, and storm drainage piping valves unless referenced.

B. ASME Compliance for Ferrous Valves: ASME B16.10 and ASME B16.34 for dimension and design criteria.

C. NSF Compliance: NSF 61 for valve materials for potable-water service.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Prepare valves for shipping as follows:

1. Protect internal parts against rust and corrosion.
2. Protect threads, flange faces, grooves, and weld ends.
3. Set angle, gate, and globe valves closed to prevent rattling.
4. Set ball and plug valves open to minimize exposure of functional surfaces.
5. Set butterfly valves closed or slightly open.
6. Block check valves in either closed or open position.

B. Use the following precautions during storage:

1. Maintain valve end protection.
2. Store valves indoors and maintain at higher than ambient dew-point temperature. If outdoor storage is necessary, store valves off the ground in watertight enclosures.

C. Use sling to handle large valves; rig sling to avoid damage to exposed parts. Do not use handwheels or stems as lifting or rigging points.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2 VALVES, GENERAL

A. Refer to Part 3 "Valve Applications" Article for applications of valves.

B. Bronze Valves: NPS 2 (DN 50) and smaller with threaded ends, unless otherwise indicated.

C. Ferrous Valves: NPS 2-1/2 (DN 65) and larger with flanged ends, unless otherwise indicated.

D. Valve Pressure and Temperature Ratings: Not less than indicated and as required for system pressures and temperatures.

E. Valve Sizes: Same as upstream pipe, unless otherwise indicated.

F. Valve Actuators:

1. Chainwheel: For attachment to valves, of size and mounting height, as indicated in the "Valve Installation" Article in Part 3.
2. Gear Drive: For quarter-turn valves NPS 8 (DN 200) and larger.
3. Handwheel: For valves other than quarter-turn types.
4. Lever Handle: For quarter-turn valves NPS 6 (DN 150) and smaller, except plug valves.

G. Extended Valve Stems: On insulated valves.

H. Valve Flanges: ASME B16.1 for cast-iron valves, ASME B16.5 for steel valves, and ASME B16.24 for bronze valves.

I. Valve Grooved Ends: AWWA C606.

1. Solder Joint: With sockets according to ASME B16.18.

a. Caution: Use solder with melting point below 840 deg F (454 deg C) for angle, check, gate, and globe valves; below 421 deg F (216 deg C) for ball valves.

2. Threaded: With threads according to ASME B1.20.1.

J. Valve Bypass and Drain Connections: MSS SP-45.

2.3 BRONZE ANGLE VALVES

A. Manufacturers:

1. Type 2, Bronze Angle Valves with Nonmetallic Disc:
   a. Crane Co.
   b. Grinnell Corporation.
   c. Hammond Valve.
   d. NIBCO INC.

B. Bronze Angle Valves, General: MSS SP-80, with ferrous-alloy handwheel.

C. Type 2, Class 150, Bronze Angle Valves: Bronze body with nonmetallic PTFE or TFE disc.

2.4 CAST-IRON ANGLE VALVES

A. Manufacturers:

1. Type II, Cast-Iron Angle Valves with Metal Seats:

   a. Crane Co.
   b. NIBCO INC.

B. Cast-Iron Angle Valves, General: MSS SP-85, Type II.

C. Class 125, Cast-Iron Angle Valves: Bronze mounted with gray-iron body and bronze seats.

2.5 COPPER-ALLOY BALL VALVES

A. Manufacturers:

1. Two-Piece, Copper-Alloy Ball Valves:

    a. Conbraco Industries, Inc.; Apollo Div.
    b. Crane Co.
    c. Grinnell Corporation.
    d. Hammond Valve.
    e. Jamesbury, Inc.
    f. Kitz Corporation of America.
    g. Legend Valve & Fitting, Inc.
    h. Milwaukee Valve Company.
    i. NIBCO INC.
    j. Red-White Valve Corp.
    k. Watts Industries, Inc.; Water Products Div.

2. Safety-Exhaust, Copper-Alloy Ball Valves:

    a. Conbraco Industries, Inc.; Apollo Div.
    b. Grinnell Corporation.
    c. Hammond Valve.
    d. Jamesbury, Inc.
    e. Milwaukee Valve Company.
    f. NIBCO INC.

B. Copper-Alloy Ball Valves, General: MSS SP-110.

C. Two-Piece, Copper-Alloy Ball Valves: Brass or bronze body with full-port, chrome-plated bronze ball; PTFE or TFE seats; and 600-psig minimum CWP rating and blowout-proof stem.

D. Safety-Exhaust, Copper-Alloy Ball Valves: Two-piece bronze body with exhaust vent opening, chrome-plated ball with vent, blowout-proof stem, locking handle, and working pressure rating of 600-psig CWP.

2.6 FERROUS-ALLOY BALL VALVES

A. Manufacturers:
1. Conbraco Industries, Inc.; Apollo Div.
2. Crane Co.
3. Hammond Valve.
4. Jamesbury, Inc.
5. Kitz Corporation of America.
6. Milwaukee Valve Company.
7. NIBCO INC.

B. Ferrous-Alloy Ball Valves, General: MSS SP-72, with flanged ends.

C. Ferrous-Alloy Ball Valves: Class 150, full port.

2.7 FERROUS-ALLOY BUTTERFLY VALVES

A. Manufacturers:

1. Single-Flange, Ferrous-Alloy Butterfly Valves:
   a. Bray International, Inc.
   b. Crane Co.
   c. Grinnell Corporation.
   d. Hammond Valve.
   e. Kitz Corporation of America.
   f. Legend Valve & Fitting, Inc.
   g. Metraflex Co.
   h. Milwaukee Valve Company.
   i. Mueller.
   j. NIBCO INC.
   k. Red-White Valve Corp.
   l. Tyco International.
   m. Watts Industries.

2. Grooved-End, Ductile-Iron Butterfly Valves:
   a. Grinnell Corporation.
   b. Hammond Valve.
   c. Milwaukee Valve Company.
   d. Mueller.
   e. NIBCO INC.
   f. Victaulic Co. of America.

B. Ferrous-Alloy Butterfly Valves, General: MSS SP-67, Type I, for tight shutoff, with disc and lining suitable for potable water, unless otherwise indicated.

C. Single-Flange, 150-psig (1035-kPa) CWP Rating, Ferrous-Alloy Butterfly Valves: Wafer-lug type with one- or two-piece stem.

D. Grooved-End, 175-psig (1207-kPa) CWP Rating, Ferrous-Alloy Butterfly Valves: Ductile-iron or steel body with grooved or shouldered ends.

2.8 BRONZE CHECK VALVES

A. Manufacturers:

1. Type 2, Bronze, Horizontal Lift Check Valves with Nonmetallic Disc:
   a. Crane Co.

2. Type 2, Bronze, Vertical Lift Check Valves with Nonmetallic Disc:

    a. Grinnell Corporation.
    b. Kitz Corporation of America.
    c. Milwaukee Valve Company.

3. Type 4, Bronze, Swing Check Valves with Nonmetallic Disc:
    a. Crane Co.
    b. Grinnell Corporation.
    c. Hammond Valve.
    d. Milwaukee Valve Company.
    e. NIBCO INC.
    f. Red-White Valve Corp.
    g. Watts Industries.

B. Bronze Check Valves, General: MSS SP-80.

C. Type 2, Class 150, Bronze, Horizontal Lift Check Valves: Bronze body with nonmetallic disc and bronze seat.

D. Type 2, Class 150, Bronze, Vertical Lift Check Valves: Bronze body with nonmetallic disc and bronze seat.

E. Type 4, Class 150, Bronze, Swing Check Valves: Bronze body with nonmetallic disc and bronze seat.

2.9 GRAY-IRON SWING CHECK VALVES

A. Manufacturers:

1. Type II, Gray-Iron Swing Check Valves with Composition to Metal Seats:

    a. Crane Co.
    b. Mueller Co.
    c. Watts Industries.

2. Grooved-End, Ductile-Iron Swing Check Valves:

    a. Grinnell Corporation.
    b. Mueller Co.
    c. Victaulic Co. of America.

B. Gray-Iron Swing Check Valves, General: MSS SP-71.

C. Type II, Class 125, gray-iron, swing check valves with composition to metal seats.

D. 175-psig (1207-kPa) CWP Rating, Grooved-End, Swing Check Valves: Ductile-iron body with grooved or shouldered ends.

2.10 FERROUS-ALLOY WAFER CHECK VALVES

A. Manufacturers:

1. Dual-Plate, Ferrous-Alloy, Wafer Check Valves:

a. Crane Co.
b. Grinnell Corporation.
c. Metraflex Co.
d. Mueller.
e. NIBCO INC.
f. Red-White Valve Corp.
g. Watts Industries.

B. Ferrous-Alloy Wafer Check Valves, General: API 594, spring loaded.

C. Dual-Plate, Class 125 or 150, Ferrous-Alloy, Wafer-Lug Check Valves: Single-flange body.

2.11 SPRING-LOADED, LIFT-DISC CHECK VALVES

A. Manufacturers:

1. Type II, Compact-Wafer, Lift-Disc Check Valves:
a. Grinnell Corporation.
b. Hammond Valve.
c. Metraflex Co.
d. Milwaukee Valve Company.
e. Mueller.
f. NIBCO INC.

2. Type IV, Threaded Lift-Disc Check Valves:
a. Grinnell Corporation.
b. Legend Valve & Fitting, Inc.
c. Metraflex Co.
d. Milwaukee Valve Company.
e. Mueller.
f. NIBCO INC.
g. Watts Industries.

B. Lift-Disc Check Valves, General: FCI 74-1, with spring-loaded bronze or alloy disc and bronze or alloy seat.

C. Type II, Class 125, Compact-Wafer, Lift-Disc Check Valves: Compact-wafer style with cast-iron shell with diameter made to fit within bolt circle.

D. Type IV, Class 150, Threaded Lift-Disc Check Valves: Threaded style with bronze shell and threaded ends.

2.12 BRONZE GATE VALVES

A. Manufacturers:

1. Type 2, Bronze, Rising-Stem, Solid-Wedge Gate Valves:
   a. Crane Co.
   b. Grinnell Corporation.
   c. Hammond Valve.
   d. Kitz Corporation of America.
   e. Milwaukee Valve Company.
   f. NIBCO INC.
   g. Red-White Valve Corp.

B. Bronze Gate Valves, General: MSS SP-80, with ferrous-alloy handwheel.

C. Type 2, Class 150, Bronze Gate Valves: Bronze body with rising stem and bronze solid wedge.

2.13 CAST-IRON GATE VALVES

A. Manufacturers:

1. Type I, Cast-Iron, Nonrising-Stem Gate Valves:
   a. Crane Co.
   b. Grinnell Corporation.
   c. Hammond Valve.
   d. Kitz Corporation of America.
   e. Legend Valve & Fitting, Inc.
   f. Milwaukee Valve Company.
   g. NIBCO INC.
   h. Red-White Valve Corp.
   i. Watts Industries.

B. Cast-Iron Gate Valves, General: MSS SP-70, Type I.

C. Class 125, NRS, Bronze-Mounted, Cast-Iron Gate Valves: Cast-iron body with bronze trim, nonrising stem, and solid-wedge disc.

2.14 BRONZE GLOBE VALVES

A. Manufacturers:

1. Type 1, Bronze Globe Valves with Metal Disc:
   a. Crane Co.
   b. Grinnell Corporation.
   c. Hammond Valve.
   d. Kitz Corporation of America.
   e. Legend Valve & Fitting, Inc.
   f. Milwaukee Valve Company.
   g. NIBCO INC.
   h. Red-White Valve Corp.

2. Type 2, Bronze Globe Valves with Nonmetallic Disc:
   a. Crane Co.
   b. Grinnell Corporation.
   c. Hammond Valve.
   d. Kitz Corporation of America.
   e. Milwaukee Valve Company.
   f. NIBCO INC.
   g. Red-White Valve Corp.

B. Bronze Globe Valves, General: MSS SP-80, with ferrous-alloy handwheel.

C. Type 1, Class 125, Bronze Globe Valves: Bronze body with bronze disc.

D. Type 2, Class 150, Bronze Globe Valves: Bronze body with nonmetallic PTFE or TFE disc.

2.15 CAST-IRON GLOBE VALVES

A. Manufacturers:

1. Type I, Cast-Iron Globe Valves with Metal Seats:
   a. Crane Co.
   b. Grinnell Corporation.
   c. Hammond Valve.
   d. Kitz Corporation of America.
   e. Milwaukee Valve Company.
   f. NIBCO INC.

g. Red-White Valve Corp.

B. Cast-Iron Globe Valves, General: MSS SP-85.

C. Type I, Class 125, Cast-Iron Globe Valves: Gray-iron body with bronze seats.

2.16 CHAINWHEEL ACTUATORS

A. Manufacturers:

1. Babbitt Steam Specialty Co.
2. Roto Hammer Industries, Inc.

B. Description: Valve actuation assembly with sprocket rim, brackets, and chain.

1. Sprocket Rim with Chain Guides: Ductile iron, of type and size required for valve. Include zinc coating on exterior applications.
2. Brackets: Type, number, size, and fasteners required to mount actuator on valve.
3. Chain: Hot-dip, galvanized steel, of size required to fit sprocket rim.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine piping system for compliance with requirements for installation tolerances and other conditions affecting performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

B. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.

C. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.

D. Examine threads on valve and mating pipe for form and cleanliness.

E. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, that its material composition is suitable for service, and that it is free from defects and damage.

F. Do not attempt to repair defective valves; replace with new valves.

3.2 VALVE APPLICATIONS

A. Refer to piping Sections for specific valve applications. If valve applications are not indicated, use the following:

1. Shutoff Service: Ball, butterfly, gate, or plug valves.
2. Throttling Service: Angle, ball, butterfly, or globe valves.
3. Pump Discharge: Spring-loaded, lift-disc check valves.

B. If valves with specified SWP classes or CWP ratings are not available, the same types of valves with higher SWP class or CWP ratings may be substituted.

C. Chilled-Water Piping: Use the following types of valves:

1. Angle Valves, NPS 2 (DN 50) and Smaller: Type 2, Class 150, bronze.
2. Angle Valves, NPS 2-1/2 (DN 65) and Larger: Type II, Class 125, cast iron.
3. Ball Valves, NPS 2 (DN 50) and Smaller: Two-piece, 600-psig (4140-kPa) CWP rating, copper alloy.
4. Ball Valves, NPS 2-1/2 (DN 65) and Larger: Class 150, ferrous alloy.
5. Butterfly Valves, NPS 2-1/2 (DN 65) and Larger: Single-flange, 150-psig (1035-kPa) CWP rating, ferrous alloy, with Buta-N liner.
6. Grooved-End, Ductile-Iron Butterfly Valves, NPS 2-1/2 (DN 65) and Larger: 300-psig (2070-kPa) CWP rating.
7. Lift Check Valves, NPS 2 (DN 50) and Smaller: Type 2, Class 150, horizontal or vertical, bronze.
8. Swing Check Valves, NPS 2 (DN 50) and Smaller: Type 4, Class 150, bronze.
9. Swing Check Valves, NPS 2-1/2 (DN 65) and Larger: Type II, Class 125, gray iron.
10. Grooved-End, Ductile-Iron, Swing Check Valves, NPS 2-1/2 (DN 65) and Larger: 175-psig (1207-kPa) CWP rating.
11. Wafer Check Valves, NPS 2-1/2 (DN 65) and Larger: Dual-plate, wafer, Class 125 or 150 ferrous alloy.
12. Spring-Loaded, Lift-Disc Check Valves, NPS 2 (DN 50) and Smaller: Type IV, Class 150.
13. Spring-Loaded, Lift-Disc Check Valves, NPS 2-1/2 (DN 65) and Larger: Type II, Class 125, cast iron.
14. Gate Valves, NPS 2 (DN 50) and Smaller: Type 2, Class 150, bronze.
15. Gate Valves, NPS 2-1/2 (DN 65) and Larger: Type I, Class 125, NRS, bronze-mounted cast iron.
16. Globe Valves, NPS 2 (DN 50) and Smaller: Type 2, Class 150, bronze.

17. Globe Valves, NPS 2-1/2 (DN 65) and Larger: Type I, Class 125, bronze-mounted cast iron.

D. Condenser Water Piping: Use the following types of valves:

1. Ball Valves, NPS 2 and Smaller: Two-piece, 600-psig CWP rating, copper alloy.
2. Ball Valves, NPS 2-1/2 and Larger: Class 150, ferrous alloy.
3. Butterfly Valves, NPS 2-1/2 and Larger: Single-flange, 150-psig CWP rating, ferrous alloy, with Buta-N liner.
4. Grooved-End, Ductile-Iron Butterfly Valves, NPS 2-1/2 and Larger: 300-psig CWP rating.
5. Lift Check Valves, NPS 2 and Smaller: Type 2, Class 150, horizontal or vertical, bronze.
6. Swing Check Valves, NPS 2 and Smaller: Type 4, Class 150, bronze.
7. Swing Check Valves, NPS 2-1/2 and Larger: Type II, Class 125, gray iron.
8. Grooved-End, Ductile-Iron, Swing Check Valves, NPS 2-1/2 and Larger: 175-psig CWP rating.
9. Wafer Check Valves, NPS 2-1/2 and Larger: Dual-plate, wafer, Class 125 or 150, ferrous alloy.
10. Spring-Loaded, Lift-Disc Check Valves, NPS 2 and Smaller: Type IV, Class 150.
11. Spring-Loaded, Lift-Disc Check Valves, NPS 2-1/2 and Larger: Type II, Class 125, cast iron.
12. Gate Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
13. Gate Valves, NPS 2-1/2 and Larger: Type I, Class 125, NRS, bronze-mounted cast iron.
14. Globe Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
15. Globe Valves, NPS 2-1/2 and Larger: Type I, Class 125, bronze-mounted cast iron.

E. Domestic Water Piping: Use the following types of valves:

1. Angle Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
2. Angle Valves, NPS 2-1/2 and Larger: Type II, Class 125, cast iron.
3. Ball Valves, NPS 2 and Smaller: Two-piece, 600-psig CWP rating, copper alloy.
4. Ball Valves, NPS 2-1/2 and Larger: Class 150, ferrous alloy.
5. Butterfly Valves, NPS 2-1/2 and Larger: Single-flange, 150-psig CWP rating, ferrous alloy, with EPDM liner.
6. Grooved-End, Ductile-Iron Butterfly Valves, NPS 2-1/2 and Larger: 300-psig CWP rating.
7. Lift Check Valves, NPS 2 and Smaller: Type 2, Class 150, horizontal or vertical, bronze.

8. Swing Check Valves, NPS 2 and Smaller: Type 4, Class 125, bronze.
9. Swing Check Valves, NPS 2-1/2 and Larger: Type II, Class 125, gray iron.
10. Grooved-End, Ductile-Iron, Swing Check Valves, NPS 2-1/2 and Larger: 175-psig CWP rating.
11. Wafer Check Valves, NPS 2-1/2 and Larger: Dual-plate, wafer, Class 125 or 150, ferrous alloy.
12. Spring-Loaded, Lift-Disc Check Valves, NPS 2 and Smaller: Type IV, Class 150.
13. Spring-Loaded, Lift-Disc Check Valves, NPS 2-1/2 and Larger: Type II, Class 125, cast iron.
14. Gate Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
15. Gate Valves, NPS 2-1/2 and Larger: Type I, Class 125, NRS, bronze-mounted cast iron.
16. Globe Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
17. Globe Valves, NPS 2-1/2 and Larger: Type I, Class 125, bronze-mounted cast iron.

F. Heating Water Piping: Use the following types of valves:

1. Angle Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
2. Angle Valves, NPS 2-1/2 and Larger: Type II, Class 125, cast iron.
3. Ball Valves, NPS 2 and Smaller: Two-piece, 600-psig CWP rating, copper alloy.
4. Ball Valves, NPS 2-1/2 and Larger: Class 150, ferrous alloy.
5. Butterfly Valves, NPS 2-1/2 and Larger: Single-flange, 150-psig CWP rating, ferrous alloy, with EPDM liner.
6. Grooved-End, Ductile-Iron Butterfly Valves, NPS 2-1/2 and Larger: 300-psig CWP rating.
7. Lift Check Valves, NPS 2 and Smaller: Type 2, Class 150, horizontal vertical, bronze.
8. Swing Check Valves, NPS 2 and Smaller: Type 4, Class 150, bronze.
9. Swing Check Valves, NPS 2-1/2 and Larger: Type II, Class 125, gray iron.
10. Grooved-End, Ductile-Iron, Swing Check Valves, NPS 2-1/2 and Larger: 175-psig CWP rating.
11. Wafer Check Valves, NPS 2-1/2 and Larger: Dual-plate, wafer, Class 125 or 150, ferrous alloy.
12. Spring-Loaded, Lift-Disc Check Valves, NPS 2 and Smaller: Type IV, Class 150.
13. Spring-Loaded, Lift-Disc Check Valves, NPS 2-1/2 and Larger: Type II, Class 125, cast iron.
14. Gate Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
15. Gate Valves, NPS 2-1/2 and Larger: Type I, Class 125, NRS, bronze-mounted cast iron.

16. Globe Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
17. Globe Valves, NPS 2-1/2 and Larger: Type I, Class 125, bronze-mounted cast iron.

G. Sanitary Waste and Storm Drainage Piping: Use the following types of valves:

1. Ball Valves, NPS 2 and Smaller: Two-piece, 600-psig CWP rating, copper alloy.
2. Ball Valves, NPS 2-1/2 and Larger: Class 150, ferrous alloy.
3. Swing Check Valves, NPS 2 and Smaller: Type 4, Class 150, bronze.
4. Swing Check Valves, NPS 2-1/2 and Larger: Type I or II, Class 125, gray iron.
5. Grooved-End, Ductile-Iron, Swing Check Valves, NPS 2-1/2 and Larger: 175-psig minimum CWP rating.
6. Gate Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
7. Gate Valves, NPS 2-1/2 and Larger: Type I, Class 125, NRS, bronze-mounted cast iron.
8. Globe Valves, NPS 2 and Smaller: Type 2, Class 150, bronze.
9. Globe Valves, NPS 2-1/2 and Larger: Type I, Class 125, cast iron.

H. Select valves, except wafer and flangeless types, with the following end connections:

1. For Copper Tubing, NPS 2 and Smaller: Solder-joint or threaded ends, except provide valves with threaded ends for heating hot water.
2. For Copper Tubing, NPS 2-1/2 (DN65) and larger: Flanged ends.
3. For Steel Piping, NPS 2 and Smaller: Threaded ends.
4. For Steel Piping, NPS 2-1/2 (DN65) and larger: Flanged ends.
5. For Grooved-End, Copper Tubing and Steel Piping: Valve ends may be grooved. Do not use for steam or steam condensate piping.

3.3 VALVE INSTALLATION

A. Piping installation requirements are specified in other Division 15 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance, and equipment removal without system shutdown.

C. Locate valves for easy access and provide separate support where necessary.

D. Install valves in horizontal piping with stem at or above center of pipe.

E. Install valves in position to allow full stem movement.

F. Install chainwheel operators on valves and larger and more than 96 inches above floor. Extend chains to 60 inches above finished floor elevation.

G. Install check valves for proper direction of flow and as follows:

1. Swing Check Valves: In horizontal position with hinge pin level.
2. Dual-Plate Check Valves: In horizontal or vertical position, between flanges.
3. Lift Check Valves: With stem upright and plumb.

3.4 JOINT CONSTRUCTION

A. Refer to Division 15 Section "Basic Mechanical Materials and Methods" for basic piping joint construction.

B. Grooved Joints: Assemble joints with keyed coupling housing, gasket, lubricant, and bolts according to coupling and fitting manufacturer's written instructions.

C. Soldered Joints: Use ASTM B 813, water-flushable, lead-free flux; ASTM B 32, lead-free-alloy solder; and ASTM B 828 procedure, unless otherwise indicated.

3.5 ADJUSTING

A. Adjust or replace valve packing after piping systems have been tested and put into service but before final adjusting and balancing. Replace valves if persistent leaking occurs.

END OF SECTION 15110

SECTION 15140 - DOMESTIC WATER PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes domestic water piping inside the building.

B. Water meters will be furnished and installed by utility company.

C. Related Sections include the following:
   1. Division 2 Section "Water Distribution" for water-service piping outside the building from source to the point where water-service piping enters the building.
   2. Division 15 Section "Plumbing Specialties" for water distribution piping specialties.

1.3 PERFORMANCE REQUIREMENTS

A. Provide components and installation capable of producing domestic water piping systems with 80 psig, unless otherwise indicated.

1.4 SUBMITTALS

A. Product Data: For pipe, tube, fittings, and couplings.

B. Water Samples: Specified in Part 3 "Cleaning" Article.

C. Field quality-control test reports.

1.5 QUALITY ASSURANCE

A. Piping materials shall bear label, stamp, or other markings of specified testing agency.

B. Comply with NSF 61, "Drinking Water System Components - Health Effects; Sections 1 through 9," for potable domestic water piping and components.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

A. Refer to Part 3 "Pipe and Fitting Applications" Article for applications of pipe, tube, fitting, and joining materials.

B. Transition Couplings for Aboveground Pressure Piping: Coupling or other manufactured fitting the same size as, with pressure rating at least equal to and ends compatible with, piping to be joined.

2.2 STEEL PIPE AND FITTINGS

A. Steel Pipe: ASTM A 53/A 53M, Type E or S, Grade B, Schedule 40, galvanized. Include ends matching joining method.
   1. Steel Pipe Nipples: ASTM A 733, made of ASTM A 53/A 53M or ASTM A 106, Schedule 40, galvanized, seamless steel pipe. Include ends matching joining method.
   2. Malleable-Iron Unions: ASME B16.39, Class 150, hexagonal-stock body, with ball-and-socket, metal-to-metal, bronze seating surface and female threaded ends.
   3. Gray-Iron, Threaded Fittings: ASME B16.4, Class 125, galvanized, standard pattern.
   4. Cast-Iron Flanges: ASME B16.1, Class 125.
   5. Cast-Iron, Flanged Fittings: ASME B16.1, Class 125, galvanized.
   6. Steel-Piping, Grooved-End Fittings: ASTM A 47/A 47M, galvanized, malleable-iron casting; ASTM A 106, galvanized steel pipe; or ASTM A 536, galvanized, ductile-iron casting; with dimensions matching steel pipe.
      a. Grooved-End-Pipe Couplings: AWWA C606, for steel-pipe dimensions. Include ferrous housing sections, gasket suitable for water, and bolts and nuts.
   7. Steel-Piping, Expansion Joints: Compound, galvanized steel fitting with telescoping body and slip-pipe section. Include packing rings, packing, limit rods, chrome-plated finish on slip-pipe sections, and flanged ends.
   8. Steel-Piping, Double Expansion Joints: Compound, galvanized steel fitting with telescoping body and two slip-pipe sections. Include packing rings, packing, limit rods, chrome-plated finish on slip-pipe sections, and flanged ends.

2.3 COPPER TUBE AND FITTINGS

A. Soft Copper Tube: ASTM B 88, Type K (ASTM B 88M, Type A), water tube, annealed temper.
   1. Copper Pressure Fittings: ASME B16.18, cast-copper-alloy or ASME B16.22, wrought-copper, solder-joint fittings. Furnish wrought-copper fittings if indicated.
   2. Bronze Flanges: ASME B16.24, Class 150, with solder-joint ends. Furnish Class 300 flanges if required to match piping.
   3. Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body, with ball-and-socket, metal-to-metal seating surfaces, and solder-joint or threaded ends.

B. Hard Copper Tube: ASTM B 88, Type L (ASTM B 88M, Type B), water tube, drawn temper.
   1. Copper Pressure Fittings: ASME B16.18, cast-copper-alloy or ASME B16.22, wrought- copper, solder-joint fittings. Furnish wrought-copper fittings if indicated.
   2. Bronze Flanges: ASME B16.24, Class 150, with solder-joint ends. Furnish Class 300 flanges if required to match piping.
   3. Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body, with ball-and-socket, metal-to-metal seating surfaces, and solder-joint or threaded ends.
   4. Copper, Grooved-End Fittings: ASTM B 75 (ASTM B 75M) copper tube or ASTM B 584 bronze castings.
      a. Grooved-End-Tube Couplings: Copper-tube dimensions and design similar to AWWA C606. Include ferrous housing sections, gasket suitable for hot water, and bolts and nuts.

2.4 PVC PIPE AND FITTINGS

A. PVC Schedule 40 Pipe: ASTM D1785.
   1. PVC Schedule 40 Fittings: ASTM D2466, socket type.

2.5 VALVES

A. Bronze and cast-iron, general-duty valves are specified in Division 15 Section "Valves."

B. Balancing and drain valves are specified in Division 15 Section "Plumbing Specialties."

PART 3 - EXECUTION

3.1 EXCAVATION

A. Excavating, trenching, and backfilling are specified in Division 2 Section "Earthwork."

3.2 PIPE AND FITTING APPLICATIONS

A. Transition and special fittings with pressure ratings at least equal to piping rating may be used in applications below, unless otherwise indicated.

B. Flanges may be used on aboveground piping, unless otherwise indicated.

C. Grooved joints may be used on aboveground grooved-end piping.

D. Fitting Option: Extruded-tee connections and brazed joints may be used on aboveground copper tubing.

E. Underground, Water-Service Piping on Service Side of Water Meter: Refer to Division 2 Section "Water Distribution."

F. Underground, water-service piping on house side of water meter. Use any of the following piping materials:
   1. PVC Schedule 40 Pipe: ASTM D1785.
      a. PVC Schedule 40 Fittings: ASTM D2466, socket type.
   2. Soft copper tube, type K (type A); copper pressure fittings; and soldered joints.

G. Under-Building-Slab, Domestic Water Piping on House Side of Water Meter, NPS 4 (DN 100) and Smaller: Soft copper tube, Type K (Type A); copper pressure fittings; and soldered joints.

H. Aboveground Domestic Water Piping: Use any of the following piping materials for each size range:
   1. NPS 3 (DN 80) and Smaller: Hard copper tube, Type L (Type B); copper pressure fittings; and soldered joints.
   2. NPS 4 to NPS 6 (DN 100 to DN 150): Hard copper tube, Type L (Type B); copper pressure fittings; and soldered joints.
   3. NPS 4 to NPS 8 (DN 100 to DN 200): Hard copper tube, Type L (Type B) with grooved ends; copper grooved-end fittings; grooved-end-tube couplings; and grooved joints.
   4. NPS 8 to NPS 12 (DN 200 to DN 300): Steel pipe; gray-iron, threaded fittings; and threaded joints.

5. NPS 8 to NPS 12 (DN 200 to DN 300): Steel pipe with grooved ends; steel-piping, grooved-end fittings; grooved-end-pipe couplings; and grooved joints.

3.3 VALVE APPLICATIONS

A. Drawings indicate valve types to be used. Where specific valve types are not indicated, the following requirements apply:
   1. Shutoff Duty: Use bronze ball or gate valves for piping NPS 2 (DN 50) and smaller. Use cast-iron butterfly or gate valves with flanged ends for piping NPS 2-1/2 (DN 65) and larger.
   2. Throttling Duty: Use bronze ball or globe valves for piping NPS 2 (DN 50) and smaller. Use cast-iron butterfly valves with flanged ends for piping NPS 2-1/2 (DN 65) and larger.
   3. Hot-Water-Piping, Balancing Duty: Memory-stop balancing valves.
   4. Drain Duty: Hose-end drain valves.

B. Cast-iron, grooved-end valves may be used with grooved-end piping.

C. Install shutoff valve close to water main on each branch and riser serving plumbing fixtures or equipment, on each water supply to equipment, and on each water supply to plumbing fixtures that do not have supply stops. Use ball or gate valves for piping NPS 2 (DN 50) and smaller. Use butterfly or gate valves for piping NPS 2-1/2 (DN 65) and larger.

D. Install drain valves for equipment at base of each water riser, at low points in horizontal piping, and where required to drain water piping.
   1. Install hose-end drain valves at low points in water mains, risers, and branches.
   2. Install stop-and-waste drain valves where indicated.

E. Install calibrated balancing valves in each hot-water circulation return branch and discharge side of each pump and circulator. Set calibrated balancing valves partly open to restrict but not stop flow. Calibrated balancing valves are specified in Division 15 Section "Plumbing Specialties."

3.4 PIPING INSTALLATION

A. Basic piping installation requirements are specified in Division 15 Section "Basic Mechanical Materials and Methods."

B. Install under-building-slab copper tubing according to CDA's "Copper Tube Handbook."

C. Install cast-iron sleeve with water stop and mechanical sleeve seal at each service pipe penetration through foundation wall. Select number of interlocking rubber links required to make installation watertight. Sleeves and mechanical sleeve seals are specified in Division 15 Section "Basic Mechanical Materials and Methods."

D. Install shutoff valve, hose-end drain valve, strainer, pressure gage, and test tee with valve, inside the building at each domestic water service entrance.

E. Install water-pressure regulators downstream from shutoff valves. Water-pressure regulators are specified in Division 15 Section "Plumbing Specialties."

F. Install domestic water piping level and plumb.

G. Rough-in domestic water piping for water-meter installation according to utility company's requirements.

3.5 JOINT CONSTRUCTION

A. Basic piping joint construction requirements are specified in Division 15 Section "Basic Mechanical Materials and Methods."

B. Soldered Joints: Use ASTM B 813, water-flushable, lead-free flux; ASTM B 32, lead-free-alloy solder; and ASTM B 828 procedure, unless otherwise indicated.

C. Grooved Joints: Assemble joints with grooved-end-pipe or grooved-end-tube coupling housing, gasket, lubricant, and bolts according to coupling and fitting manufacturer's written instructions.

D. Extruded-Tee Connections: Form tee in copper tube according to ASTM F 2014. Use tool designed for copper tube; drill pilot hole, form collar for outlet, dimple tube to form seating stop, and braze branch tube into collar.

3.6 HANGER AND SUPPORT INSTALLATION

A. Pipe hanger and support devices are specified in Division 15 Section "Hangers and Supports." Install the following:
   1. Vertical Piping: MSS Type 8 or Type 42, clamps.
   2. Individual, Straight, Horizontal Piping Runs: According to the following:
      a. 100 Feet (30 m) and Less: MSS Type 1, adjustable, steel clevis hangers.
      b. Longer Than 100 Feet (30 m): MSS Type 43, adjustable roller hangers.
      c. Longer Than 100 Feet (30 m): MSS Type 49, spring cushion rolls, if indicated.

3. Multiple, Straight, Horizontal Piping Runs 100 Feet (30 m) or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
4. Base of Vertical Piping: MSS Type 52, spring hangers.

B. Install supports according to Division 15 Section "Hangers and Supports."

C. Support vertical piping and tubing at base and at each floor.

D. Rod diameter may be reduced 1 size for double-rod hangers, to a minimum of 3/8 inch (10 mm).

E. Install hangers for steel piping with the following maximum horizontal spacing and minimum rod diameters:
1. NPS 4 and NPS 5 (DN 100 and DN 125): 12 feet (3.7 m) with 5/8-inch (16-mm) rod.
2. NPS 6 (DN 150): 12 feet (3.7 m) with 3/4-inch (19-mm) rod.
3. NPS 8 to NPS 12 (DN 200 to DN 300): 12 feet (3.7 m) with 7/8-inch (22-mm) rod.

F. Install supports for vertical steel piping every 15 feet (4.5 m).

G. Install hangers for copper tubing with the following maximum horizontal spacing and minimum rod diameters:
1. NPS 3/4 (DN 20) and Smaller: 60 inches (1500 mm) with 3/8-inch (10-mm) rod.
2. NPS 1 and NPS 1-1/4 (DN 25 and DN 32): 72 inches (1800 mm) with 3/8-inch (10-mm) rod.
3. NPS 1-1/2 and NPS 2 (DN 40 and DN 50): 96 inches (2400 mm) with 3/8-inch (10-mm) rod.
4. NPS 2-1/2 (DN 65): 108 inches (2700 mm) with 1/2-inch (13-mm) rod.
5. NPS 3 to NPS 5 (DN 80 to DN 125): 10 feet (3 m) with 1/2-inch (13-mm) rod.
6. NPS 6 (DN 150): 10 feet (3 m) with 5/8-inch (16-mm) rod.
7. NPS 8 (DN 200): 10 feet (3 m) with 3/4-inch (19-mm) rod.

H. Install supports for vertical copper tubing every 10 feet (3 m).

I. Support piping and tubing not listed above according to MSS SP-69 and manufacturer's written instructions.

3.7 CONNECTIONS

A. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to equipment and machines to allow service and maintenance.

C. Connect domestic water piping to exterior water-service piping. Use transition fitting to join dissimilar piping materials.

D. Connect domestic water piping to water-service piping with shutoff valve, and extend and connect to the following:
   1. Booster Pumps: Cold-water suction and discharge piping.
   2. Water Heaters: Cold-water supply and hot-water outlet piping in sizes indicated, but not smaller than sizes of water heater connections.
   3. Plumbing Fixtures: Cold- and hot-water supply piping in sizes indicated, but not smaller than required by plumbing code. Refer to Division 15 Section "Plumbing Fixtures."
   4. Equipment: Cold- and hot-water supply piping as indicated, but not smaller than equipment connections. Provide shutoff valve and union for each connection. Use flanges instead of unions for NPS 2-1/2 (DN 65) and larger.

3.8 FIELD QUALITY CONTROL

A. Inspect domestic water piping as follows:
   1. Do not enclose, cover, or put piping into operation until it has been inspected and approved by authorities having jurisdiction.
   2. During installation, notify authorities having jurisdiction at least 24 hours before inspection must be made. Perform tests specified below in presence of authorities having jurisdiction:
      a. Roughing-in Inspection: Arrange for inspection of piping before concealing or closing-in after roughing-in and before setting fixtures.
      b. Final Inspection: Arrange final inspection for authorities having jurisdiction to observe tests specified below and to ensure compliance with requirements.
   3. Reinspection: If authorities having jurisdiction find that piping will not pass test or inspection, make required corrections and arrange for reinspection.
   4. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.

B. Test domestic water piping as follows:
   1. Fill domestic water piping. Check components to determine that they are not air bound and that piping is full of water.
   2. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit separate report for each test, complete with diagram of portion of piping tested.

3. Leave new, altered, extended, or replaced domestic water piping uncovered and unconcealed until it has been tested and approved. Expose work that was covered or concealed before it was tested.
4. Cap and subject piping to static water pressure of 50 psig (345 kPa) above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow to stand for four hours. Leaks and loss in test pressure constitute defects that must be repaired.
5. Repair leaks and defects with new materials and retest piping or portion thereof until satisfactory results are obtained.
6. Prepare reports for tests and required corrective action.

3.9 ADJUSTING

A. Perform the following adjustments before operation:
1. Close drain valves, hydrants, and hose bibbs.
2. Open shutoff valves to fully open position.
3. Open throttling valves to proper setting.
4. Adjust balancing valves in hot-water-circulation return piping to provide adequate flow.
   a. Manually adjust ball-type balancing valves in hot-water-circulation return piping to provide flow of hot water in each branch.
   b. Adjust calibrated balancing valves to flows indicated.
5. Remove plugs used during testing of piping and plugs used for temporary sealing of piping during installation.
6. Remove and clean strainer screens. Close drain valves and replace drain plugs.
7. Remove filter cartridges from housings and verify that cartridges are as specified for application where used and are clean and ready for use.
8. Check plumbing specialties and verify proper settings, adjustments, and operation.

3.10 CLEANING

A. Clean and disinfect potable domestic water piping as follows:
1. Purge new piping and parts of existing domestic water piping that have been altered, extended, or repaired before using.
2. Use purging and disinfecting procedures prescribed by authorities having jurisdiction or, if methods are not prescribed, procedures described in either AWWA C651 or AWWA C652 or as described below:
   a. Flush piping system with clean, potable water until dirty water does not appear at outlets.
   b. Fill and isolate system according to either of the following:

1) Fill system or part thereof with water/chlorine solution with at least 50 ppm (50 mg/L) of chlorine. Isolate with valves and allow to stand for 24 hours.
2) Fill system or part thereof with water/chlorine solution with at least 200 ppm (200 mg/L) of chlorine. Isolate and allow to stand for three hours.

c. Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.

d. Submit water samples in sterile bottles to authorities having jurisdiction. Repeat procedures if biological examination shows contamination.

B. Prepare and submit reports of purging and disinfecting activities.

C. Clean interior of domestic water piping system. Remove dirt and debris as work progresses.

END OF SECTION 15140

SECTION 15150 - SANITARY WASTE AND VENT PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following for soil, waste, and vent piping inside the building:

1. Pipe, tube, and fittings.
2. Special pipe fittings.
3. Encasement for underground metal piping.

B. Related Sections include the following:

1. Division 15 Section "Chemical-Waste Piping" for chemical-waste and vent piping systems.

1.3 DEFINITIONS

A. EPDM: Ethylene-propylene-diene terpolymer rubber.

B. PE: Polyethylene plastic.

C. PVC: Polyvinyl chloride plastic.

1.4 PERFORMANCE REQUIREMENTS

A. Components and installation shall be capable of withstanding the following minimum working pressure, unless otherwise indicated:

1. Soil, Waste, and Vent Piping: 10-foot head of water.

1.5 SUBMITTALS

A. Product Data: For pipe, tube, fittings, and couplings.

B. Shop Drawings:
   1. Sovent Drainage System: Include plans, elevations, sections, and details.

C. Field quality-control inspection and test reports.

1.6 QUALITY ASSURANCE

A. Piping materials shall bear label, stamp, or other markings of specified testing agency.

B. Comply with NSF 14, "Plastics Piping Systems Components and Related Materials," for plastic piping components. Include marking with "NSF-dwv" for plastic drain, waste, and vent piping; "NSF-drain" for plastic drain piping; "NSF-tubular" for plastic continuous waste piping; and "NSF-sewer" for plastic sewer piping.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

A. Refer to Part 3 "Piping Applications" Article for applications of pipe, tube, fitting, and joining materials.

2.2 HUB-AND-SPIGOT, CAST-IRON SOIL PIPE AND FITTINGS

A. Pipe and Fittings: ASTM A 74, Service class.

B. Gaskets: ASTM C 564, rubber.

C. Lead and Oakum: ASTM B 29, pure lead and oakum or hemp fiber.

2.3 HUBLESS CAST-IRON SOIL PIPE AND FITTINGS

A. Pipe and Fittings: ASTM A 888 or CISPI 301.

B. Shielded Couplings: ASTM C 1277 assembly of metal shield or housing, corrosion-resistant fasteners, and rubber sleeve with integral, center pipe stop.

1. Standard, Shielded, Stainless-Steel Couplings: CISPI 310, with stainless-steel corrugated shield; stainless-steel bands and tightening devices; and ASTM C 564, rubber sleeve.

2. Heavy-Duty, Shielded, Stainless-Steel Couplings: With stainless-steel shield, stainless-steel bands and tightening devices, and ASTM C 564, rubber sleeve.

C. Rigid, Unshielded Couplings: ASTM C 1461, sleeve-type, reducing- or transition-type mechanical coupling molded from ASTM C 1440, TPE material with corrosion-resistant-metal tension band and tightening mechanism on each end.

2.4 PVC PIPE AND FITTINGS

A. Solid-Wall PVC Pipe: ASTM D 2665, drain, waste, and vent.

1. PVC Socket Fittings: ASTM D 2665, socket type, made to ASTM D 3311, drain, waste, and vent patterns.

2.5 SPECIAL PIPE FITTINGS

A. Sovent Drainage System Fittings: ASME B16.45 or ASSE 1043, cast-iron aerator and deaerator fittings.

B. Flexible, Nonpressure Pipe Couplings: Comply with ASTM C 1173, elastomeric, sleeve-type, reducing or transition pattern. Include shear ring, ends of same sizes as piping to be joined, and corrosion-resistant-metal tension band and tightening mechanism on each end.

1. Sleeve Materials:

a. For Cast-Iron Soil Pipes: ASTM C 564, rubber.
b. For Plastic Pipes: ASTM F 477, elastomeric seal or ASTM D 5926, PVC.
c. For Dissimilar Pipes: ASTM D 5926, PVC or other material compatible with pipe materials being joined.

C. Shielded Nonpressure Pipe Couplings: ASTM C 1460, elastomeric or rubber sleeve with full-length, corrosion-resistant outer shield and corrosion-resistant-metal tension band and tightening mechanism on each end.

D. Expansion Joints: Two or three-piece, ductile-iron assembly consisting of telescoping sleeve(s) with gaskets and restrained-type, ductile-iron, bell-and-

spigot end sections complying with AWWA C110 or AWWA C153. Select and assemble components for expansion indicated. Include AWWA C111, ductile-iron glands, rubber gaskets, and steel bolts.

E. Wall-Penetration Fittings: Compound, ductile-iron coupling fitting with sleeve and flexing sections for up to 20-degree deflection, gaskets, and restrained-joint ends complying with AWWA C110 or AWWA C153. Include AWWA C111, ductile-iron glands, rubber gaskets, and steel bolts.

F. Tubular Fittings: ASTM F 409, PVC drainage-pattern tube and tubular fittings with ends as required for application.

2.6 ENCASEMENT FOR UNDERGROUND METAL PIPING

A. Description: ASTM A 674 or AWWA C105, high-density, crosslaminated PE film of 0.004-inch (0.10-mm) minimum thickness.

B. Form: tube.

C. Color: Black.

PART 3 - EXECUTION

3.1 EXCAVATION

A. Refer to Division 2 Section "Earthwork" for excavating, trenching, and backfilling.

3.2 PIPING APPLICATIONS

A. Flanges and unions may be used on aboveground pressure piping, unless otherwise indicated.

B. Piping installed in building plenums shall meet requirements of materials within ducts or plenums (ceiling spaces used as supply or return air plenums) and shall have a flame-spread index of not more than 25 and a smoke-developed rating of not more than 50 when tested in accordance with the test for Surface Burning Characteristics of Materials.

C. Aboveground, soil and waste piping NPS 4 (DN 100) and smaller shall be any of the following:

1. Service class, cast-iron soil pipe and fittings; gaskets; and compression joints.
2. Hubless cast-iron soil pipe and fittings; standard, shielded, stainless-steel couplings; and hubless-coupling joints.
3. Solid-wall PVC pipe, PVC socket fittings, and solvent-cemented joints.

D. Aboveground, soil and waste piping NPS 5 (DN 125) and larger shall be any of the following:

1. Service class, cast-iron soil pipe and fittings; gaskets; and compression joints.
2. Hubless cast-iron soil pipe and fittings; standard, shielded, stainless-steel couplings; and hubless-coupling joints.
3. Solid-wall PVC pipe, PVC socket fittings, and solvent-cemented joints.

E. Aboveground, vent piping all sizes shall be any of the following:

1. Service class, cast-iron soil pipe and fittings; gaskets; and compression joints.
2. Hubless cast-iron soil pipe and fittings; standard, shielded, stainless-steel couplings; and hubless-coupling joints.
3. Solid-wall PVC pipe, PVC socket fittings, and solvent-cemented joints.

F. Above and belowground, sovent drainage system with soil, waste, and vent piping materials indicated.

G. Underground, soil, waste, and vent piping all sizes shall be any of the following:

1. Service class, cast-iron soil piping; gaskets; and gasketed joints.
2. Hubless cast-iron soil pipe and fittings; heavy-duty shielded, cast-iron couplings; and hubless-coupling joints.
3. Solid wall PVC pipe, PVC socket fittings, and solvent-cemented joints.

3.3 PIPING INSTALLATION

A. Sanitary sewer piping outside the building is specified in Division 2 Section "Sanitary Sewerage."

B. Basic piping installation requirements are specified in Division 15 Section "Basic Mechanical Materials and Methods."

C. Install cleanouts at grade and extend to where building sanitary drains connect to building sanitary sewers.

D. Install cast-iron sleeve with water stop and mechanical sleeve seal at each service pipe penetration through foundation wall. Select number of interlocking rubber links required to make installation watertight. Sleeves and mechanical sleeve seals are specified in Division 15 Section "Basic Mechanical Materials and Methods."

E. Install cast-iron soil piping according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook," Chapter IV, "Installation of Cast Iron Soil Pipe and Fittings."

1. Install encasement on underground piping according to ASTM A 674 or AWWA C105.

F. Make changes in direction for soil and waste drainage and vent piping using appropriate branches, bends, and long-sweep bends. Sanitary tees and short-sweep 1/4 bends may be used on vertical stacks if change in direction of flow is from horizontal to vertical. Use long-turn, double Y-branch and 1/8-bend fittings if 2 fixtures are installed back to back or side by side with common drain pipe. Straight tees, elbows, and crosses may be used on vent lines. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.

G. Lay buried building drainage piping beginning at low point of each system. Install true to grades and alignment indicated, with unbroken continuity of invert. Place hub ends of piping upstream. Install required gaskets according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements. Maintain swab in piping and pull past each joint as completed.

H. Install soil and waste drainage and vent piping at the following minimum slopes, unless otherwise indicated:

1. Building Sanitary Drain: 2 percent downward in direction of flow for piping NPS 3 (DN 80) and smaller; 1 percent downward in direction of flow for piping NPS 4 (DN 100) and larger.
2. Horizontal Sanitary Drainage Piping: 2 percent downward in direction of flow.
3. Vent Piping: 1 percent down toward vertical fixture vent or toward vent stack.

I. Install engineered soil and waste drainage and vent piping systems as follows:

1. Combination Waste and Vent: Comply with standards of authorities having jurisdiction.
2. Sovent Drainage System: Comply with ASSE 1043 and sovent fitting manufacturer's written installation instructions.

3. Reduced-Size Venting: Comply with standards of authorities having jurisdiction.

J. Sleeves are not required for cast-iron soil piping passing through concrete slabs-on-grade if slab is without membrane waterproofing.

K. Install PVC soil and waste drainage and vent piping according to ASTM D 2665.

L. Install underground PVC soil and waste drainage piping according to ASTM D 2321.

M. Do not enclose, cover, or put piping into operation until it is inspected and approved by authorities having jurisdiction.

3.4 JOINT CONSTRUCTION

A. Basic piping joint construction requirements are specified in Division 15 Section "Basic Mechanical Materials and Methods."

B. Join hub-and-spigot, cast-iron soil piping with gasket joints according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook" for compression joints.

C. Join hub-and-spigot, cast-iron soil piping with calked joints according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook" for lead and oakum calked joints.

D. Join hubless cast-iron soil piping according to CISPI 310 and CISPI's "Cast Iron Soil Pipe and Fittings Handbook" for hubless-coupling joints.

E. Grooved Joints: Assemble joint with keyed coupling, gasket, lubricant, and bolts according to coupling and fitting manufacturer's written instructions.

F. PVC Nonpressure Piping Joints: Join piping according to ASTM D 2665.

3.5 VALVE INSTALLATION

A. General valve installation requirements are specified in Division 15 Section "Valves."

B. Backwater Valves: Install backwater valves in piping subject to sewage backflow.

1. Horizontal Piping: Horizontal backwater valves.
2. Floor Drains: Drain outlet backwater valves, unless drain has integral backwater valve.
3. Install backwater valves in accessible locations.

4. Backwater valve are specified in Division 15 Section "Plumbing Specialties."

3.6 HANGER AND SUPPORT INSTALLATION

A. Pipe hangers and supports are specified in Division 15 Section "Hangers and Supports." Install the following:

1. Vertical Piping: MSS Type 8 or Type 42, clamps.
2. Install individual, straight, horizontal piping runs according to the following:

    a. 100 Feet (30 m) and Less: MSS Type 1, adjustable, steel clevis hangers.
    b. Longer Than 100 Feet (30 m): MSS Type 43, adjustable roller hangers.
    c. Longer Than 100 Feet (30 m), if Indicated: MSS Type 49, spring cushion rolls.

3. Multiple, Straight, Horizontal Piping Runs 100 Feet (30 m) or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
4. Base of Vertical Piping: MSS Type 52, spring hangers.

B. Install supports according to Division 15 Section "Hangers and Supports."

C. Support vertical piping and tubing at base and at each floor.

D. Rod diameter may be reduced 1 size for double-rod hangers, with 3/8-inch (10-mm) minimum rods.

E. Install hangers for cast-iron soil piping with the following maximum horizontal spacing and minimum rod diameters:

1. NPS 1-1/2 and NPS 2 (DN 40 and DN 50): 60 inches (1500 mm) with 3/8-inch (10-mm) rod.
2. NPS 3 (DN 80): 60 inches (1500 mm) with 1/2-inch (13-mm) rod.
3. NPS 4 and NPS 5 (DN 100 and DN 125): 60 inches (1500 mm) with 5/8-inch (16-mm) rod.
4. NPS 6 (DN 150): 60 inches (1500 mm) with 3/4-inch (19-mm) rod.
5. NPS 8 to NPS 12 (DN 200 to DN 300): 60 inches (1500 mm) with 7/8-inch (22-mm) rod.

F. Install supports for vertical cast-iron soil piping every 15 feet (4.5 m).

G. Install hangers for PVC piping with the following maximum horizontal spacing and minimum rod diameters:

1. NPS 1-1/2 and NPS 2 (DN 40 and DN 50): 48 inches (1200 mm) with 3/8-inch (10-mm) rod.
2. NPS 3 (DN 80): 48 inches (1200 mm) with 1/2-inch (13-mm) rod.
3. NPS 4 and 5 (DN 100 and 125): 48 inches (1200 mm) with 5/8-inch (16-mm) rod.
4. NPS 6 (DN 150): 48 inches (1200 mm) with 3/4-inch (19-mm) rod.
5. NPS 8 to NPS 12 (DN 200 to DN 300): 48 inches (1200 mm) with 7/8-inch (22-mm) rod.

H. Install supports for vertical PVC piping every 48 inches (1200 mm).

I. Support piping and tubing not listed above according to MSS SP-69 and manufacturer's written instructions.

3.7 CONNECTIONS

A. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Connect soil and waste piping to exterior sanitary sewerage piping. Use transition fitting to join dissimilar piping materials.

C. Connect drainage and vent piping to the following:

1. Plumbing Fixtures: Connect drainage piping in sizes indicated, but not smaller than required by plumbing code.
2. Plumbing Fixtures and Equipment: Connect atmospheric vent piping in sizes indicated, but not smaller than required by authorities having jurisdiction.
3. Plumbing Specialties: Connect drainage and vent piping in sizes indicated, but not smaller than required by plumbing code.
4. Equipment: Connect drainage piping as indicated. Provide shutoff valve, if indicated, and union for each connection. Use flanges instead of unions for connections NPS 2-1/2 (DN 65) and larger.

3.8 FIELD QUALITY CONTROL

A. During installation, notify authorities having jurisdiction at least 24 hours before inspection must be made. Perform tests specified below in presence of authorities having jurisdiction.

1. Roughing-in Inspection: Arrange for inspection of piping before concealing or closing-in after roughing-in and before setting fixtures.

2. Final Inspection: Arrange for final inspection by authorities having jurisdiction to observe tests specified below and to ensure compliance with requirements.

B. Reinspection: If authorities having jurisdiction find that piping will not pass test or inspection, make required corrections and arrange for reinspection.

C. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.

D. Test sanitary drainage and vent piping according to procedures of authorities having jurisdiction or, in absence of published procedures, as follows:

1. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit separate report for each test, complete with diagram of portion of piping tested.
2. Leave uncovered and unconcealed new, altered, extended, or replaced drainage and vent piping until it has been tested and approved. Expose work that was covered or concealed before it was tested.
3. Roughing-in Plumbing Test Procedure: Test drainage and vent piping, except outside leaders, on completion of roughing-in. Close openings in piping system and fill with water to point of overflow, but not less than 10-foot head of water (30 kPa). From 15 minutes before inspection starts to completion of inspection, water level must not drop. Inspect joints for leaks.
4. Finished Plumbing Test Procedure: After plumbing fixtures have been set and traps filled with water, test connections and prove they are gastight and watertight. Plug vent-stack openings on roof and building drains where they leave building. Introduce air into piping system equal to pressure of 1-inch wg (250 Pa). Use U-tube or manometer inserted in trap of water closet to measure this pressure. Air pressure must remain constant without introducing additional air throughout period of inspection. Inspect plumbing fixture connections for gas and water leaks.
5. Repair leaks and defects with new materials and retest piping, or portion thereof, until satisfactory results are obtained.
6. Prepare reports for tests and required corrective action.

3.9 CLEANING

A. Clean interior of piping. Remove dirt and debris as work progresses.

B. Protect drains during remainder of construction period to avoid clogging with dirt and debris and to prevent damage from traffic and construction work.

C. Place plugs in ends of uncompleted piping at end of day and when work stops.

3.10 PROTECTION

A. Exposed PVC Piping: Protect plumbing vents exposed to sunlight with two coats of water-based latex paint.

END OF SECTION 15150

SECTION 15300

PIPES, VALVES AND FITTINGS FOR FIRE PROTECTION SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Scope of work:
   1. All areas as indicated on the drawings are to be protected by an automatic suppression system, of type as indicated.
   2. Wet pipe.

B. Contractor shall be responsible for designing the distribution systems and sizing of the systems by hydraulic calculation; and shall provide the necessary engineering drawings and calculations to obtain acceptance of all authorities having jurisdiction.

1.2 RELATED SECTIONS

A. Section 07840 - Firestopping.

B. Section 08310 - Access Doors and Panels.

C. Section 15050 - Basic Mechanical Methods and Materials.

D. Section 15060 - Hangers and Supports.

E. Section 15500 - Piping Specialties.

1.3 REFERENCES

A. ASTM International (ASTM) A536 - Standard Specification for Ductile Iron Castings.

B. Manufacturers Standardization Society of the Valve and Fittings Industry (MSS) SP-127 Bracing for Piping Systems Seismic-Wind-Dynamic Design, Selection, Application.

C. NFPA 13 - Installation of sprinkler systems.

D. NFPA 72 - Installation, maintenance and use of protective signaling devices.

1.4 SYSTEM DESCRIPTION

A. System components to be UL listed/FM approved and labeled.

B. System components to be to be rated for minimum operating pressure of 175 psig.

C. Pipe, Valves, and Fittings - Grooved products for steel and copper fire protection systems shall be used. Refer to Section 15050 - Basic Materials and Methods and Section 15500 - Piping Specialties.

D. Products shall be UL/ULC listed and FM approved. Materials shall be installed in accordance with current NFPA Standards, local Rating Bureau and/or local Fire Marshall requirements.

E. Incorporate in construction pipe hangers and supports to manufacturer's recommendations utilizing manufacturer's regular production components, parts and assemblies. Refer to Section 15060 - Hangers and Supports.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Installation methods.

C. Certifications:
1. Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements. Certificates shall be furnished only as required by specific codes, upon request.

D. Shop Drawings:
1. Submit shop drawings and Product Data grouped to include complete submittals of related systems, products, and accessories in a single submittal.

E. Closeout Submittals:
1. Warranty: Warranty documents.
2. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance.

1.6 QUALITY ASSURANCE

A. Installer Qualifications:
1. Fire Protection Contractor shall be licensed by the State in which the project is located authorized to furnish and install fire protection systems.
2. Contractor shall obtain all necessary permits and licenses pertaining to this Division (expense borne by the Contractor) and comply with Municipal and State Codes, Laws, Ordinances and Regulations, and the requirements of the National Fire protection Association, and pay all fees and sales taxes as required, and post all bonds incident thereto.

B. Conduct pre-installation meeting to verify project requirements, coordinate with other trades, and establish condition and completeness of substrate. Review manufacturer's installation instructions and manufacturer's warranty requirements.

1.7 DEFINITION

A. "Piping" includes all pipe, fittings, valves, hangers, and other supports and accessories related to such piping.

B. "Concealed" means hidden from sight in chases, furred spaces, shafts, hung ceilings, embedded in construction, in crawl spaces or buried.

C. "Exposed" means not installed underground or "concealed" as defined above.

D. "Fire Protection Work" is all of the work Indicated or required by the Contract Documents.

E. "Or equivalent" means to possess the same performance qualities and characteristics and fulfill the utilitarian function without any decrease in quality, durability or longevity.

F. "Provide" means the Contractor shall "furnish and install" work and/or equipment.

G. "FPC" means the Fire Protection Contractor.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.9 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.10 WARRANTY

A. Contractor shall guarantee, in writing, that all work installed shall be free from any and all defects in workmanship and materials; that all apparatus shall develop capacities and characteristics specified; and that if, during the period of one year, or as otherwise specified, from the date of substantial completion, any defects in workmanship, material or performance appear, the Contractor shall, without cost to the Owner, remedy such defects within a reasonable time as specified in notice from the Owner's Representative. In default thereof, the Owner's Representative shall have the work done and charge the cost of the work to the Contractor.

B. Furnish manufacturers written warranties for all equipment, stating effective date of Warranty, to the Owner's Representative.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Manufacturers shall meet or exceed NFPA and local authority requirements.

2.2 MANUFACTURED UNITS

A. Grooved Butterfly Valve: Gruvlok Figure AE-7722-3A, 2 to 10 inches (51 mm to 254 mm). 300 PSI (2.1 MPa) rated UL/FM approved grooved-end with two (2) switches; one is a supervisory switch and the other is an auxiliary switch. Tamper resistant screws shall be provided to attach the cover of the actuator. Or Equal.

B. Check Valves: Gruvlok Figure 78FP, 2 to 12 inches (51 to 305 mm): 300 PSI (2.1 MPa) rated, UL/ULC listed and FM approved grooved-end.

C. Couplings for Fire Protections Systems - Gruvlok UL/ULC listed and/or FM approved.

Figure 7000 (Flexible) and 7400 (Rigidlok) Grade "E" EPDM Type A, "C" Style Gaskets (DRI-SEAL), Type E EPDM, or Flush Gap Gasket. Or Equal.

D. Grooved Fittings for Fire Protection Piping Systems: Gruvlok Fire-Rite short pattern fittings, 90 degree elbows and tees in 2 to 8 inches (51 mm to 203 mm) or Gruvlok standard pattern fittings, 2 to 12 inches (51 to 305 mm). Cast ductile conforms to ASTM A-536 Ductile Iron to Grade 65-45-12. Fittings are painted to industry specification and are available galvanized. Fire-RiteSYMBOL 212 fittings are UL/ULC listed and FM approved. Or Equal.

2.3 SPRINKLER HEADS

A. Manufacturer:
   1. Viking, Central, Reliable, Tyco or equal.
   2. Type: Concealed fire sprinkler heads only (Shall be approved by architect for coordination of ceiling construction types).

2.4 PIPING

A. Steel Piping:
   1. Refer to Section 15050 for fire protection piping material.

2.5 ACCESS PANELS

A. Provide access panels as required by Section 08310 - Access Doors and Panels.

2.6 FIRESTOPPING MATERIALS

A. Provide fire stopping assemblies as required by Section 07840 - Firestopping.

2.7 EQUIPMENT SUPPORTS

A. Fabricate equipment supports not provided by equipment manufacturer from structural grade steel meeting requirements of Section 05120 Structural Steel. Submit calculations with shop drawings.

2.8 EQUIPMENT ANCHOR BOLTS AND TEMPLATES

A. Provide templates to ensure accurate location of anchor bolts.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Contractor shall verify and obtain fire flow test data required for design.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best

result for the substrate under the project conditions.

C. Provide openings as necessary to permit installation of piping or any other part of work under this Section.

D. Provide sleeves for piping penetrating floor and masonry walls.

E. This Contractor shall be responsible for establishing sizes and locations of all openings and lintels in new work and to transmit this information to the Contractor whose work is involved at such time as to avoid cutting and patching.

F. All patching shall match adjacent surfaces.

G. Contractor shall inspect and take note of existing conditions along with the Owner's Representative to avoid disputes regarding the condition of existing surface before work began.

H. Openings through existing concrete shall be core-drilled or saw cut.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Provide access panels for access to equipment, valves, or other specialties installed behind wall or above ceiling surfaces.

C. Lay-in acoustical tee bar ceilings and snap-in removable metal pan ceilings shall be considered adequate for access.

D. Fire Protection Contractor shall sublet installation work to subcontractors specifically skilled in the construction of the surfaces involved.

E. Contractor shall confer with the other Project Contractors with respect to access panel locations and shall, wherever practicable, group devices in such a manner so as to eliminate as many panels as possible.

F. Contractor shall remove all markings and labels from access panels.

G. Cutting or drilling thru structural beams or joists is not permitted.

H. Provide all openings and set all sleeves in cooperation with Contractors whose work is affected thereby.

I. Caulk opening between pipe and sleeve with fire barrier sealant.

J. In event holes must be provided through reinforced concrete, they shall be carefully drilled so as to avoid spalling and unnecessary damage of weakening of any structural member; chopping or breaking out will not be permitted.

K. Obtain Architect's approval before providing openings through concrete or masonry in place and then proceed as directed.

L. Contractor shall be responsible for damage to finished work resulting from cutting or drilling required because of neglect of Contractor to provide accurate and sufficient information.

M. Penetrations through fire and/or smoke rated construction shall be sealed to maintain the rating of the construction in which they occur.

N. Comply with the manufacturer's requirements for proper installation of fire stop materials to obtain the required fire and/or smoke rating.

3.4 SPRINKLER HEADS

A. Locate sprinkler heads, main piping and valves as indicated on the drawings.

B. Install sprinkler heads to coordinate with all lights, grilles and any other obstructions in ceiling.

C. Center sprinkler heads in ceiling tile and provide piping offsets as required.

D. Where ceiling is to be painted or sprayed, apply paper cover over sprinkler heads to ensure the head and escutcheons do not get coated. Remove protective paper cover after painting or spraying is completed.

E. Provide mountable metal box of spare heads with proper wrench for head replacement.

3.5 TESTS AND INSPECTIONS

A. Contractor shall be responsible for testing and certification of systems and ordering inspections as required by authorities having jurisdiction.

B. All tests shall be conducted in the presence of and to the satisfaction of the Owner or an authorized representative.

C. Inspections shall be made by the Owner's authorized representative and inspectors having jurisdiction.

3.6 PROTECTION

A. After all tests have been made and the systems pronounced to be satisfactory, the Contractor shall go over all work and clean equipment, fixtures, and related appurtenances and piping, and leave them clean and in complete working order at final completion of the project.

B. Protect installed products until completion of project.

C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 15410 - PLUMBING FIXTURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes plumbing fixtures and related components.

B. Related Sections include the following:

1. Division 15 Section "Emergency Plumbing Fixtures."
2. Division 15 Section "Drinking Fountains and Water Coolers."
3. Division 15 Section "Plumbing Specialties" for backflow preventers and specialty fixtures not in this Section.

1.3 DEFINITIONS

A. Accessible Fixture: Plumbing fixture that can be approached, entered, and used by people with disabilities.

B. Fitting: Device that controls flow of water into or out of plumbing fixture. Fittings specified in this Section include supplies and stops, faucets and spouts, shower heads and tub spouts, drains and tailpieces, and traps and waste pipes. Piping and general-duty valves are included where indicated.

1.4 SUBMITTALS

A. Product Data: Include selected fixture and trim, fittings, accessories, appliances, appurtenances, equipment, and supports and indicate materials and finishes, dimensions, construction details, and flow-control rates for each type of fixture indicated.

B. Shop Drawings: Diagram power, signal, and control wiring and differentiate between manufacturer-installed and field-installed wiring.

C. Maintenance Data: For plumbing fixtures to include in maintenance manuals specified in Division 1.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain plumbing fixtures, faucets, and other components of each category through one source from a single manufacturer.

1. Exception: If fixtures, faucets, or other components are not available from a single manufacturer, obtain similar products from other manufacturers specified for that category.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

C. Regulatory Requirements: Comply with requirements in ICC A117.1, "Accessible and Usable Buildings and Facilities"; Public Law 90-480, "Architectural Barriers Act"; and Public Law 101-336, "Americans with Disabilities Act"; about plumbing fixtures for people with disabilities.

D. Regulatory Requirements: Comply with requirements in U.S. Architectural & Transportation Barriers Compliance Board's "Uniform Federal Accessibility Standards (UFAS), 1985-494-187" about plumbing fixtures for people with disabilities.

E. Regulatory Requirements: Comply with requirements in Public Law 102-486, "Energy Policy Act," about water flow and consumption rates for plumbing fixtures.

F. NSF Standard: Comply with NSF 61, "Drinking Water System Components--Health Effects," for fixture materials that will be in contact with potable water.

G. Select combinations of fixtures and trim, faucets, fittings, and other components that are compatible.

H. Comply with the following applicable standards and other requirements specified for plumbing fixtures:

1. Enameled, Cast-Iron Fixtures: ASME A112.19.1M.
2. Hand Sinks: NSF 2 construction.
3. Porcelain-Enameled, Formed-Steel Fixtures: ASME A112.19.4M.
4. Slip-Resistant Bathing Surfaces: ASTM F 462.
5. Stainless-Steel Fixtures Other Than Service Sinks: ASME A112.19.3M.
6. Vitreous-China Fixtures: ASME A112.19.2M.

7. Water-Closet, Flush Valve, Tank Trim: ASME A112.19.5.
8. Water-Closet, Flushometer Tank Trim: ASSE 1037.

I. Comply with the following applicable standards and other requirements specified for lavatory and sink faucets:

1. Backflow Protection Devices for Faucets with Side Spray: ASME A112.18.3M.
2. Backflow Protection Devices for Faucets with Hose-Thread Outlet: ASME A112.18.3M.
3. Diverter Valves for Faucets with Hose Spray: ASSE 1025.
4. Faucet Hose: ASTM D 3901.
5. Faucets: ASME A112.18.1M.
6. Hose-Connection Vacuum Breakers: ASSE 1011.
7. Hose-Coupling Threads: ASME B1.20.7.
8. Integral, Atmospheric Vacuum Breakers: ASSE 1001.
9. NSF Materials: NSF 61.
10. Pipe Threads: ASME B1.20.1.
11. Sensor-Actuated Faucets and Electrical Devices: UL 1951.
12. Supply and Drain Fittings: ASME A112.18.1M.

J. Comply with the following applicable standards and other requirements specified for bathtub and shower faucets:

1. Backflow Protection Devices for Hand-Held Showers: ASME A112.18.3M.
2. Combination, Pressure-Equalizing and Thermostatic-Control Antiscald Faucets: ASSE 1016.
3. Faucets: ASME A112.18.1M.
4. Hand-Held Showers: ASSE 1014.
5. High-Temperature-Limit Controls for Thermal-Shock-Preventing Devices: ASTM F 445.
6. Hose-Coupling Threads: ASME B1.20.7.
7. Manual-Control Antiscald Faucets: ASTM F 444.
8. Pipe Threads: ASME B1.20.1.
9. Pressure-Equalizing-Control Antiscald Faucets: ASTM F 444 and ASSE 1016.
10. Sensor-Actuated Faucets and Electrical Devices: UL 1951.
11. Thermostatic-Control Antiscald Faucets: ASTM F 444 and ASSE 1016.

K. Comply with the following applicable standards and other requirements specified for miscellaneous fittings:

1. Atmospheric Vacuum Breakers: ASSE 1001.
2. Brass and Copper Supplies: ASME A112.18.1M.
3. Manual-Operation Flushometers: ASSE 1037.

4. Sensor-Operation Flushometers: ASSE 1037 and UL 1951.
5. Tubular Brass Drainage Fittings and Piping: ASME A112.18.1M.

L. Comply with the following applicable standards and other requirements specified for miscellaneous components:

1. Disposers: ASSE 1008 and UL 430.
2. Floor Drains: ASME A112.21.1M.
3. Hose-Coupling Threads: ASME B1.20.7.
4. Off-Floor Fixture Supports: ASME A112.6.1M.
5. Pipe Threads: ASME B1.20.1.
6. Plastic Shower Receptors: ANSI Z124.2.
7. Plastic Toilet Seats: ANSI Z124.5.
8. Supply and Drain Protective Shielding Guards: ICC A117.1.

1.6 COORDINATION

A. Coordinate roughing-in and final plumbing fixture locations, and verify that fixtures can be installed to comply with original design and referenced standards.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. For fixture descriptions in other Part 2 articles where the subparagraph titles "Manufacturers" introduce a list of manufacturers, the following requirements apply for product selection:
1. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified in other Part 2 articles.

2.2 LAVATORY FAUCETS

A. Lavatory Faucet,: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes and outlet with spout and fixture receptor.

1. Available Manufacturers:

a. American Standard.

b. T & S Brass.

c. Kohler.

d. Chicago.

2. Refer to Plumbing Schedule for specification standards.

2.3 BATHTUB FAUCETS

A. Bathtub Faucet: Include hot- and cold-water indicators; tub spout; and shower head, arm, and flange. Coordinate faucet inlets with supplies and outlet with diverter valve.
   1. Manufacturers:
      a. American Standard.
      b. T & S Brass.
      c. Kohler.
      d. Chicago.
   2. Refer to Plumbing Schedule for specification standards.

2.4 SHOWER FAUCETS

A. Shower Faucet: Include hot- and cold-water indicators; tub spout; and shower head, arm, and flange. Coordinate faucet inlets with supplies and outlet with diverter valve.
   1. Manufacturers:
      a. American Standard.
      b. T & S Brass.
      c. Kohler.
      d. Chicago.
   2. Refer to Plumbing Schedule for specification standards.

2.5 SINK FAUCETS

A. Sink Faucet: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes and outlet with spout and fixture receptor.
   1. Manufacturers:

a. American Standard.

b. T & S Brass.

c. Kohler.

d. Chicago.

2. Refer to Plumbing Schedule for specification standards.

2.6 FLUSHOMETERS

A. Flushometer: Cast-brass body with corrosion-resistant internal components, non-hold-open feature, control stop with check valve, vacuum breaker, and copper or brass tubing, and polished chrome-plated finish on exposed parts.
1. Manufacturers:

a. Sloan, Royal.

b. Zurn, Aquaflush, AT.

2. Refer to Plumbing Schedule for specification standards.

2.7 TOILET SEATS

A. Toilet Seat: Solid plastic.
1. Manufacturers:

a. Church.

b. American Standard.

c. Olsenite.

2. Refer to Plumbing Schedule for specification standards.

2.8 PROTECTIVE SHIELDING GUARDS

A. Protective Shielding Guard: Manufactured, plastic covering for hot- and cold-water supplies and trap and drain piping and complying with ADA requirements.
1. Manufacturers:

a. Plumerer.

b. Truebro.

c. McGuire.

d. Engineered Brass.

2.9 FIXTURE SUPPORTS

A. Water-Closet Support: Water-closet combination carrier designed for accessible or standard mounting height, as required. Include single or double, vertical or horizontal, hub-and-spigot or hubless waste fitting as required for piping arrangement; faceplates; couplings with gaskets; feet; and fixture bolts and hardware matching fixture. Include additional extension coupling, faceplate, and feet for installation in wide pipe space.

1. Manufacturers:

a. Josam.

b. Mifab.

c. Smith.

d. Wade.

e. Zurn.

B. Urinal Support: Type I, urinal carrier with fixture support plates and coupling with seal and fixture bolts and hardware matching fixture. Include steel uprights with feet.

1. Manufacturers:

a. Josam.

b. Mifab.

c. Smith.

d. Wade.

e. Zurn.

2. Accessible Fixture Support: Include rectangular steel uprights.

C. Lavatory Support: Type II, lavatory carrier with concealed arms and tie rod. Include steel uprights with feet.

1. Manufacturers:

a. Josam.

b. Mifab.

c. Smith.

d. Wade.

e. Zurn.

2. Accessible Fixture Support: Include rectangular steel uprights.

D. Sink Support: Type II, sink carrier with hanger plate, bearing studs, and tie rod. Include steel uprights with feet.
1. Manufacturers:

a. Josam.

b. Mifab.

c. Smith.

d. Wade.

e. Zurn.

2.10 WATER CLOSETS

A. Water Closets,: Accessible and standard, wall hung and floor mounted, vitreous-china fixture designed for gravity-type tank, flushometer tank, or flushometer valve operation.
1. Products:

a. American Standard, Inc.
b. Crane Plumbing/Fiat Products.
c. Kohler Co.
d. Eljer Plumbingware.

2. Refer to Plumbing Schedule for Specification Standards.

2.11 URINALS

A. Urinals,: Accessible and standard Wall-hanging, bottom-outlet, vitreous-china fixture designed for flushometer valve operation.
1. Products:

a. American Standard.

b. Crane Plumbing/Fiat Products.
c. Kohler Co.
d. Eljer Plumbingware.

2. Refer to Plumbing Schedule for Specification Standards.

2.12 LAVATORIES

A. Lavatories: Accessible and standard, Wall-hanging, vitreous-china fixture.
1. Products:
a. American Standard, Inc.
b. Crane Plumbing/Fiat Products.
c. Kohler Co.
d. Eljer Plumbingware.
2. Refer to Plumbing Schedule for Specification Standards.

B. Lavatories: Accessible and Standard Counter-mounting, vitreous-china fixture.
1. Products:
a. American Standard, Inc.
b. Crane Plumbing/Fiat Products.
c. Kohler Co.
d. Eljer Plumbingware Div.
2. Refer to Plumbing Schedule for Specification Standards.

2.13 KITCHEN SINKS

A. Kitchen Sinks: Counter-mounting, stainless-steel fixture.
1. Products:
a. Elkay Manufacturing Co.
b. Just Manufacturing Co.
c. Kohler Co.
d. Sterling Plumbing Group, Inc.
2. Refer to Plumbing Schedule for Specifications Standards.

B. Bar Sinks: Single-compartment, counter-mounting, stainless-steel fixture.
1. Products:
a. Elkay Manufacturing Co.
b. Federal Home Products Div.
c. Just Manufacturing Co.
d. Kohler Co.
e. Sterling Plumbing Group, Inc.
2. Refer to Plumbing Schedule for Specifications Standards.

2.14 SERVICE BASINS

A. Service Basins,: Flush-to-wall, floor-mounting precast terrazzo basin with rim guard.

1. Available Products:
2. Products:

    a. Acorn Engineering Co.
    b. Crane Plumbing/Fiat Products.
    c. Precast Terrazzo Enterprises, Inc.
    d. Stern-Williams Co., Inc.
3. Refer to Plumbing Schedule for Specification Standards.

2.15 WASH FOUNTAINS

A. Wash Fountains,: Accessible, Circular, semi-circular, and flush-to-wall freestanding-design and wall-hung, wash-up fixture.
    1. Products:

        a. Acorn Engineering Co.
        b. Bradley Corporation.
        c. Intersan Manufacturing Co.
    2. Refer to Plumbing Schedule for Specification Standards.

2.16 SERVICE SINKS

A. Service Sinks,: Trap-standard- and wall-mounting, enameled, cast iron with roll-rim sink with plain or two faucet holes in back and rim guard on front and sides.
    1. Products:
        a. Kohler Co.
        b. Eljer Plumbingware.
        c. Crane Plumbing/Fiat Products.
    2. Refer to Plumbing Schedule for Specification Standards.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine roughing-in for water soil and for waste piping systems and supports to verify actual locations and sizes of piping connections and that locations and

types of supports match those indicated, before plumbing fixture installation. Use manufacturer's roughing-in data if roughing-in data are not indicated.

B. Examine walls, floors, and cabinets for suitable conditions where fixtures are to be installed.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FIXTURE INSTALLATION

A. Assemble fixtures, trim, fittings, and other components according to manufacturers' written instructions.

B. For wall-hanging fixtures, install off-floor supports affixed to building substrate.

1. Use carrier supports with waste fitting and seal for back-outlet fixtures.
2. Use carrier supports without waste fitting for fixtures with tubular waste piping.
3. Use chair-type carrier supports with rectangular steel uprights for accessible fixtures.

C. Install back-outlet, wall-hanging fixtures onto waste fitting seals and attach to supports.

D. Install floor-mounting fixtures on closet flanges or other attachments to piping or building substrate.

E. Install wall-hanging fixtures with tubular waste piping attached to supports.

F. Install floor-mounting, back-outlet water closets attached to building floor substrate and wall bracket and onto waste fitting seals.

G. Install counter-mounting fixtures in and attached to casework.

H. Install fixtures level and plumb according to manufacturers' written instructions and roughing-in drawings.

I. Install water-supply piping with stop on each supply to each fixture to be connected to water distribution piping. Attach supplies to supports or substrate within pipe spaces behind fixtures. Install stops in locations where they can be easily reached for operation.

1. Exception: Use ball, gate, or globe valve if stops are not specified with fixture. Refer to Division 15 Section "Valves" for general-duty valves.

J. Install trap and tubular waste piping on drain outlet of each fixture to be directly connected to sanitary drainage system.

K. Install tubular waste piping on drain outlet of each fixture to be indirectly connected to drainage system.

L. Install flushometer valves for accessible water closets and urinals with handle mounted on wide side of compartment. Install other actuators in locations that are easy for people with disabilities to reach.

M. Install tanks for accessible, tank-type water closets with lever handle mounted on wide side of compartment.

N. Install toilet seats on water closets.

O. Install faucet-spout fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.

P. Install water-supply, flow-control fittings with specified flow rates in fixture supplies at stop valves.

Q. Install faucet, flow-control fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.

R. Install shower, flow-control fittings with specified maximum flow rates in shower arms.

S. Install traps on fixture outlets.

1. Exception: Omit trap on fixtures with integral traps.
2. Exception: Omit trap on indirect wastes, unless otherwise indicated.

T. Install disposer in outlet of sinks indicated to have disposer. Install switch where indicated or in wall adjacent to sink if location is not indicated.

U. Install escutcheons at piping wall ceiling penetrations in exposed, finished locations and within cabinets and millwork. Use deep-pattern escutcheons if required to conceal protruding fittings. Refer to Division 15 Section "Basic Mechanical Materials and Methods" for escutcheons.

V. Set bathtubs, shower receptors, and service basins in leveling bed of cement grout. Refer to Division 15 Section "Basic Mechanical Materials and Methods" for grout.

W. Seal joints between fixtures and walls, floors, and counters using sanitary-type, one-part, mildew-resistant, silicone sealant. Match sealant color to fixture color. Refer to Division 7 Section "Joint Sealants" for sealant and installation requirements.

3.3 CONNECTIONS

A. Piping installation requirements are specified in other Division 15 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Connect water supplies from water distribution piping to fixtures.

C. Connect drain piping from fixtures to drainage piping.

D. Supply and Waste Connections to Plumbing Fixtures: Connect fixtures with water supplies, stops, risers, traps, and waste piping. Use size fittings required to match fixtures. Connect to plumbing piping.

E. Supply and Waste Connections to Fixtures and Equipment Specified in Other Sections: Connect fixtures and equipment with water supplies, stops, risers, traps, and waste piping specified. Use size fittings required to match fixtures and equipment. Connect to plumbing piping.

F. Ground equipment.

1. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.4 FIELD QUALITY CONTROL

A. Verify that installed fixtures are categories and types specified for locations where installed.

B. Check that fixtures are complete with trim, faucets, fittings, and other specified components.

C. Inspect installed fixtures for damage. Replace damaged fixtures and components.

D. Test installed fixtures after water systems are pressurized for proper operation. Replace malfunctioning fixtures and components, then retest. Repeat procedure until units operate properly.

E. Install fresh batteries in sensor-operated mechanisms.

3.5 ADJUSTING

A. Operate and adjust faucets and controls. Replace damaged and malfunctioning fixtures, fittings, and controls.

B. Adjust water pressure at faucets, shower valves, and flushometer valves to produce proper flow and stream.

C. Replace washers and seals of leaking and dripping faucets and stops.

3.6 CLEANING

A. Clean fixtures, faucets, and other fittings with manufacturers' recommended cleaning methods and materials. Do the following:

1. Remove faucet spouts and strainers, remove sediment and debris, and reinstall strainers and spouts.
2. Remove sediment and debris from drains.

3.7 PROTECTION

A. Provide protective covering for installed fixtures and fittings.

B. Do not allow use of fixtures for temporary facilities unless approved in writing by Owner.

END OF SECTION 15410

SECTION 15415 - DRINKING FOUNTAINS AND WATER COOLERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Drinking fountains.
2. Water coolers.
3. Fixture supports.

1.3 DEFINITIONS

A. Accessible: Fixture that can be approached and used by people with disabilities.

B. Fitting: Device that controls flow of water into or out of fixture.

C. Fixture: Drinking fountain or water cooler, unless one is specifically indicated.

D. Water Cooler: Electrically powered fixture for generating and delivering cooled drinking water.

1.4 SUBMITTALS

A. Product Data: Include rated capacities; shipping, installed, and operating weights; furnished specialties; and accessories for each type of fixture indicated.

B. Shop Drawings: Diagram power, signal, and control wiring and differentiate between manufacturer-installed and field-installed wiring.

C. Field Test Reports: Indicate and interpret test results for compliance with performance requirements.

D. Maintenance Data: For fixtures to include in maintenance manuals specified in Division 1.

1.5 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Regulatory Requirements: Comply with requirements in ICC A117.1, "Accessible and Usable Buildings and Facilities"; Public Law 90-480, "Architectural Barriers Act"; and Public Law 101-336, "Americans with Disabilities Act"; about fixtures for people with disabilities.

C. Regulatory Requirements: Comply with requirements in the U.S. Architectural & Transportation Barriers Compliance Board's "Uniform Federal Accessibility Standards (UFAS), 1985-494-187" about fixtures for people with disabilities.

D. NSF Standard: Comply with NSF 61, "Drinking Water System Components--Health Effects," for fixture materials that will be in contact with potable water.

E. ARI Standard: Comply with ARI 1010, "Self-Contained, Mechanically Refrigerated Drinking-Water Coolers," for water coolers and with ARI's "Directory of Certified Drinking Water Coolers" for type and style classifications.

1.6 COORDINATION

A. Coordinate roughing-in and final fixture locations, and verify that fixtures can be installed to comply with original design and referenced standards.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. For fixture descriptions in other Part 2 articles where the subparagraph titles "Manufacturers" introduce a list of manufacturers and their products or manufacturers only, the following requirements apply for product selection:
   1. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified in other Part 2 articles.

2.2 WATER COOLERS

A. Water Coolers,: Accessible, ARI 1010, pressure with bubbler fixture.
   1. Products:

      a. Elkay Manufacturing Co.
      b. Halsey Taylor.
      c. Haws Corporation.
      d. Oasis Corp.

   2. Refer to Plumbing Schedule for specification standards.

2.3 FIXTURE SUPPORTS

A. Off-Floor, Plumbing Fixture Supports: ASME A112.6.1M, water-cooler carriers. Include vertical, steel uprights with feet and tie rods and bearing plates with mounting studs matching fixture to be supported.

1. Manufacturers:

    a. Josam Co.
    b. Smith.
    c. Watts Industries, Inc.; Watts Drainage Products Div.
    d. Zurn Specifications Drainage Operation.

2. Type I: Hanger-type carrier with two vertical uprights.
3. Type II: Bilevel, hanger-type carrier with three vertical uprights.
4. Supports for Accessible Fixtures: Include rectangular, vertical, steel uprights instead of steel pipe uprights.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine roughing-in for water and waste piping systems to verify actual locations of piping connections before fixture installation. Verify that sizes and locations of piping and types of supports match those indicated.

B. Examine walls and floors for suitable conditions where fixtures are to be installed.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLICATIONS

A. Use carrier off-floor supports for wall-hanging fixtures, unless otherwise indicated.

B. Use mounting frames for recessed water coolers, unless otherwise indicated.

C. Set freestanding and pedestal drinking fountains on floor.

D. Use chrome-plated brass or copper tube, fittings, and valves in locations exposed to view. Plain copper tube, fittings, and valves may be used in concealed locations.

3.3 INSTALLATION

A. Install off-floor supports affixed to building substrate and attach wall-hanging fixtures, unless otherwise indicated.

B. Install mounting frames affixed to building construction and attach recessed water coolers to mounting frames, unless otherwise indicated.

C. Install fixtures level and plumb.

D. Install water-supply piping with shutoff valve on supply to each fixture to be connected to water distribution piping. Use ball, gate, or globe valve. Install valves in locations where they can be easily reached for operation. Refer to Division 15 Section "Valves" for general-duty valves.

E. Install trap and waste piping on drain outlet of each fixture to be connected to sanitary drainage system.

F. Install pipe escutcheons at wall penetrations in exposed, finished locations. Use deep-pattern escutcheons where required to conceal protruding pipe fittings. Refer to Division 15 Section "Basic Mechanical Materials and Methods" for escutcheons.

G. Seal joints between fixtures and walls and floors using sanitary-type, one-part, mildew-resistant, silicone sealant. Match sealant color to fixture color. Refer to Division 7 Section "Joint Sealants" for sealant and installation requirements.

3.4 CONNECTIONS

A. Piping installation requirements are specified in other Division 15 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Connect water supplies from water distribution piping to fixtures.

C. Connect drain piping from fixtures to drainage piping.

D. Ground equipment.

1. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.5 FIELD QUALITY CONTROL

A. Water-Cooler Testing: After electrical circuitry has been energized, test for compliance with requirements. Test and adjust controls and safeties.

B. Repair or replace malfunctioning units. Retest as specified above after repairs or replacements are made.

C. Report test results in writing.

3.6 ADJUSTING

A. Adjust fixture flow regulators for proper flow and stream height.

B. Adjust water-cooler temperature settings.

3.7 CLEANING

A. After completing fixture installation, inspect unit. Remove paint splatters and other spots, dirt, and debris. Repair damaged finish to match original finish.

B. Clean fixtures, on completion of installation, according to manufacturer's written instructions.

END OF SECTION 15415

SECTION 15430 - PLUMBING SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following plumbing specialties:

1. Backflow preventers.
2. Dishwasher air-gap fittings.
3. Water regulators.
4. Balancing valves.
5. Thermostatic water mixing valves.
6. Water tempering valves.
7. Strainers.
8. Outlet boxes.
9. Washer-supply outlets.
10. Hose stations.
11. Key-operation hydrants.
12. Wheel-handle wall hydrants.
13. Nondraining nonfreeze post hydrants.
14. Trap seal primer valves.
15. Drain valves.
16. Backwater valves.
17. Miscellaneous piping specialties.
18. Sleeve penetration systems.
19. Flashing materials.
20. Cleanouts.
21. Floor drains.
22. Trench drains.
23. Roof drains.
24. Grease interceptors.
25. Oil interceptors.
26. Solids interceptors.

1.3 DEFINITIONS

A. The following are industry abbreviations for plastic piping materials:

1. ABS: Acrylonitrile-butadiene-styrene plastic.
2. PE: Polyethylene plastic.
3. PUR: Polyurethane plastic.
4. PVC: Polyvinyl chloride plastic.

1.4 PERFORMANCE REQUIREMENTS

A. Provide components and installation capable of producing piping systems with following minimum working-pressure ratings, unless otherwise indicated:

1. Domestic Water Piping: 125 psig (860 kPa).
2. Sanitary Waste and Vent Piping: 10-foot head of water (30 kPa).
3. Storm Drainage Piping: 10-foot head of water (30 kPa).

1.5 SUBMITTALS

A. Product Data: Include rated capacities and shipping, installed, and operating weights. Indicate materials, finishes, dimensions, required clearances, and methods of assembly of components; and piping and wiring connections for the following:

1. Backflow preventers and water regulators.
2. Balancing valves and strainers.
3. Thermostatic water mixing valves and water tempering valves.
4. Water hammer arresters, air vents, and trap seal primer valves and systems.
5. Drain valves, hose bibbs, hydrants, and hose stations.
6. Outlet boxes and washer-supply outlets.
7. Backwater valves, cleanouts, floor drains, open receptors, trench drains, and roof drains.
8. Air-admittance valves, vent caps, vent terminals, and roof flashing assemblies.
9. Grease interceptors, oil interceptors, and solids interceptors.
10. Sleeve penetration systems.

B. Shop Drawings: Diagram power, signal, and control wiring.

C. Field test reports.

D. Maintenance Data: For plumbing specialties to include in maintenance manuals. Include the following:

1. Backflow preventers and water regulators.
2. Thermostatic water mixing valves and water tempering valves.
3. Trap seal primer valves and systems.
4. Hose stations and hydrants.
5. Grease interceptors, oil interceptors, and solids interceptors.

1.6 QUALITY ASSURANCE

A. Product Options: Drawings indicate size, profiles, and dimensional requirements of plumbing specialties and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."

B. Plumbing specialties shall bear label, stamp, or other markings of specified testing agency.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. ASME Compliance: Comply with ASME B31.9, "Building Services Piping," for piping materials and installation.

E. NSF Compliance:

1. Comply with NSF 14, "Plastics Piping Components and Related Materials," for plastic domestic water piping components. Include marking "NSF-pw" on plastic potable-water piping and "NSF-dwv" on plastic drain, waste, and vent piping.
2. Comply with NSF 61, "Drinking Water System Components--Health Effects, Sections 1 through 9," for potable domestic water plumbing specialties.

1.7 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Operating Key Handles: Equal to 100 percent of amount installed for each key-operated hose bibb and hydrant installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
   2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2 BACKFLOW PREVENTERS

A. Available Manufacturers:

B. Manufacturers:
   1. B & K Industries, Inc.
   2. Cla-Val Co.
   3. Conbraco Industries, Inc.
   4. Mueller Co.; Hersey Meters Div.
   5. Park Equipment.
   6. Watts Industries, Inc.; Water Products Div.
   7. Zurn Industries, Inc.; Wilkins Div.

C. General: ASSE standard, backflow preventers.

   1. NPS 2 (DN 50) and Smaller: Bronze body with threaded ends.
   2. NPS 2-1/2 (DN 65) and Larger: Bronze, cast-iron, steel, or stainless-steel body with flanged ends.

      a. Interior Lining: AWWA C550 or FDA-approved, epoxy coating for backflow preventers having cast-iron or steel body.

   3. Interior Components: Corrosion-resistant materials.
   4. Exterior Finish: Polished chrome plate if used in chrome-plated piping system.
   5. Strainer: On inlet, if indicated.

D. Pipe-Applied, Atmospheric-Type Vacuum Breakers: ASSE 1001, with floating disc and atmospheric vent.

E. Hose-Connection Vacuum Breakers: ASSE 1011, nickel plated, with nonremovable and manual drain features, and ASME B1.20.7, garden-hose

threads on outlet. Units attached to rough-bronze-finish hose connections may be rough bronze.

F. Intermediate Atmospheric-Vent Backflow Preventers: ASSE 1012, suitable for continuous pressure application. Include inlet screen and two independent check valves with intermediate atmospheric vent.

G. Reduced-Pressure-Principle Backflow Preventers: ASSE 1013, suitable for continuous pressure application. Include outside screw and yoke gate valves on inlet and outlet, and strainer on inlet; test cocks; and pressure-differential relief valve with ASME A112.1.2 air-gap fitting located between two positive-seating check valves.

1. Pressure Loss: 12 psig (83 kPa) maximum, through middle 1/3 of flow range.

H. Double-Check Backflow Prevention Assemblies: ASSE 1015, suitable for continuous pressure application. Include shutoff valves on inlet and outlet, and strainer on inlet; test cocks; and two positive-seating check valves.

1. Pressure Loss: 5 psig (35 kPa) maximum, through middle 1/3 of flow range.

I. Antisiphon-Pressure-Type Vacuum Breakers: ASSE 1020, suitable for continuous pressure application. Include shutoff valves, spring-loaded check valve, spring-loaded floating disc, test cocks, and atmospheric vent.

1. Pressure Loss: 5 psig (35 kPa) maximum, through middle 1/3 of flow range.

J. Dual-Check-Valve-Type Backflow Preventers: ASSE 1024, suitable for continuous pressure application. Include union inlet and two independent check valves.

K. Dual-Check-Valve-Type Backflow Preventers: ASSE 1032, suitable for continuous pressure application for carbonated beverage dispensers. Include stainless-steel body; primary and secondary checks; ball check; intermediate atmospheric-vent port for relieving carbon dioxide; and threaded ends, NPS 3/8 (DN 10).

L. Laboratory Faucet Vacuum Breakers: ASSE 1035, suitable for continuous pressure application and chrome plated; consisting of primary and secondary checks; intermediate vacuum breaker; and threaded ends, NPS 1/4 or NPS 3/8 (DN 8 or DN 10) as required.

M. Reduced-Pressure Detector Assembly Backflow Preventers: ASSE 1047, FM approved or UL listed, and suitable for continuous pressure application. Include outside screw and yoke gate valves on inlet and outlet, and strainer on inlet. Include test cocks; pressure-differential relief valve with ASME A112.1.2 air-gap fitting located between two positive-seating check valves; and bypass with displacement-type water meter, valves, and reduced-pressure backflow preventer.

1. Pressure Loss: 12 psig (83 kPa) maximum, through middle 1/3 of flow range.

N. Double-Check Detector Assembly Backflow Preventers: ASSE 1048, FM approved or UL listed, and suitable for continuous pressure application. Include outside screw and yoke gate valves on inlet and outlet, and strainer on inlet. Include test cocks; two positive-seating check valves; and bypass with displacement-type water meter, valves, and double-check backflow preventer.

1. Pressure Loss: 5 psig (35 kPa) maximum, through middle 1/3 of flow range.

O. Hose-Connection Backflow Preventers: ASSE 1052, suitable for at least 3-gpm (0.19-L/s) flow and applications with up to 10-foot head of water (30-kPa) back pressure. Include two check valves; intermediate atmospheric vent; and nonremovable, ASME B1.20.7, garden-hose threads on outlet.

P. Back-Siphonage Backflow Vacuum Breakers: ASSE 1056, suitable for continuous pressure and backflow applications. Include shutoff valves, check valve, test cocks, and vacuum vent.

2.3 DISHWASHER AIR-GAP FITTINGS

A. Description: ASSE 1021, fitting suitable for use with domestic dishwashers and for deck mounting; with plastic body, chrome-plated brass cover; and capacity of at least 5 gpm (0.32 L/s); and inlet pressure of at least 5 psig (35 kPa) at temperature of at least 140 deg F (60 deg C). Include 5/8-inch- (16-mm-) ID inlet and 7/8-inch- (22-mm-) ID outlet hose connections.

B. Hoses: Rubber and suitable for temperature of at least 140 deg F (60 deg C).

1. Inlet Hose: 5/8-inch- (16-mm-) ID and 48 inches long.
2. Outlet Hose: 7/8-inch- (22-mm-) ID and 48 inches long.

2.4 WATER REGULATORS

A. Available Manufacturers:
   1. Cla-Val Co.
   2. Conbraco Industries, Inc.
   3. Watts Industries, Inc.; Water Products Div.
   4. Zurn Industries, Inc.; Wilkins Div.

B. General: ASSE 1003, water regulators, rated for initial working pressure of 150 psig (1035 kPa) minimum. Include integral factory-installed or separate field-installed, Y-pattern strainer.

   1. NPS 2 (DN 50) and Smaller: Bronze body with threaded ends.

      a. General-Duty Service: Single-seated, direct operated, unless otherwise indicated.
      b. Booster Heater Water Supply: Single-seated, direct operated with integral bypass.

   2. NPS 2-1/2 (DN 65) and Larger: Bronze or cast-iron body with flanged ends. Include AWWA C550 or FDA-approved, interior epoxy coating for regulators with cast-iron body.

      a. Type: Single-seated, direct operated.
      b. Type: Pilot-operated, single- or double-seated, cast-iron-body main valve, with bronze-body pilot valve.

   3. Interior Components: Corrosion-resistant materials.
   4. Exterior Finish: Polished chrome plate if used in chrome-plated piping system.

2.5 BALANCING VALVES

A. Calibrated Balancing Valves: Adjustable, with two readout ports and memory setting indicator. Include manufacturer's standard hoses, fittings, valves, differential pressure meter, and carrying case.

   1. Available Manufacturers:

      a. Amtrol, Inc.
      b. Flow Design, Inc.
      c. ITT Industries; Bell & Gossett Div.
      d. Watts Industries, Inc.; Water Products Div.

2. NPS 2 (DN 50) and Smaller: Bronze body with brass ball, adjustment knob, calibrated nameplate, and threaded or solder-joint ends.
3. NPS 2 (DN 50) and Smaller: Bronze, Y-pattern body with adjustment knob and threaded ends.
4. NPS 2-1/2 (DN 65) and Larger: Cast-iron, Y-pattern body with bronze disc and flanged or grooved ends.

B. Memory-Stop Balancing Valves, NPS 2 (DN 50) and Smaller: MSS SP-110, ball valve, rated for 400-psig (2760-kPa) minimum CWP. Include two-piece, copper-alloy body with standard or full-port, chrome-plated brass ball, replaceable seats and seals, threaded or solder-joint ends, and vinyl-covered steel handle with memory-stop device.

1. Available Manufacturers:

a. Conbraco Industries, Inc.
b. Crane Co.
c. Grinnell Corporation.
d. Hammond Valve.
e. Milwaukee Valve Company.
f. NIBCO INC.
g. Red-White Valve Corp.

2.6 THERMOSTATIC WATER MIXING VALVES

A. Manufacturers:
1. Bradley.
2. Lawler Manufacturing Company, Inc.
3. Leonard Valve Company.
4. Powers.
5. Symmons Industries, Inc.
6. T & S Brass and Bronze Works, Inc.

B. General: ASSE 1017, manually adjustable, thermostatic water mixing valve with bronze body. Include check stop and union on hot- and cold-water-supply inlets, adjustable temperature setting, and thermometer. Refer to plumbing schedules for further information.

2.7 WATER TEMPERING VALVES

A. Available Manufacturers:

B. Manufacturers:

1. Heat-Timer Corporation.
2. Holby Valve Co., Inc.
3. Sparco, Inc.
4. Watts Industries, Inc.; Water Products Div.

C. General: Manually adjustable, thermostatically controlled water tempering valve; bronze body; and adjustable temperature setting.

D. System Water Tempering Valves: Piston or discs controlling both hot- and cold-water flow, capable of limited antiscald protection. Include threaded inlets and outlet.

1. Finish: [**Rough bronze**] [**Chrome plated**].

E. Limited-Volume, Water Tempering Valves: Solder-joint inlets and NPS 3/4 (DN 20) maximum outlet.

2.8 STRAINERS

A. Strainers: Y-pattern, unless otherwise indicated, and full size of connecting piping. Include ASTM A 666, Type 304, stainless-steel screens with 3/64-inch (1.2-mm) round perforations, unless otherwise indicated.

1. Pressure Rating: 125-psig (860-kPa) minimum steam working pressure, unless otherwise indicated.
2. NPS 2 (DN 50) and Smaller: Bronze body, with female threaded ends.
3. NPS 2-1/2 (DN 65) and Larger: Cast-iron body, with interior AWWA C550 or FDA-approved, epoxy coating and flanged ends.
4. Y-Pattern Strainers: Screwed screen retainer with centered blowdown.

a. Drain: Factory- or field-installed, hose-end drain valve.

2.9 OUTLET BOXES

A. Available Manufacturers:

1. Acorn Engineering Company.
2. Gray, Guy Manufacturing Co., Inc.
3. Oatey.
4. Symmons Industries, Inc.
5. Zurn Industries, Inc.; Jonespec Div.

B. General: Recessed-mounting outlet boxes with supply fittings complying with ASME A112.18.1M. Include box with faceplate, services indicated for equipment connections, and wood-blocking reinforcement.

C. Clothes Washer Outlet Boxes: With hot- and cold-water hose connections and drain. Refer to plumbing schedules for further information.

D. Icemaker Outlet Boxes: With hose connection. Refer to plumbing schedules for further information.

E. Reinforcement: 2-by-4-inch (38-by-89-mm) fire-retardant-treated-wood blocking between studs. Fire-retardant-treated-wood blocking is specified in Division 6 Section "Rough Carpentry."

2.10 HOSE STATIONS

A. Available Manufacturers:
1. Leonard Valve Company.
2. Strahman Valves, Inc.
3. T & S Brass and Bronze Works, Inc.

B. General: Assembly with fitting complying with ASME A112.18.1M and hose-connection outlet with threads complying with ASME B1.20.7. Refer to plumbing schedules for further information.

2.11 KEY-OPERATION HYDRANTS

A. Available Manufacturers:

1. Josam Co.
2. Simmons Manufacturing Co.
3. Smith, Jay R. Mfg. Co.
4. Tyler Pipe; Wade Div.
5. Watts Industries, Inc.
6. Woodford Manufacturing Co.
7. Zurn Industries.

B. General: ASME A112.21.3M, key-operation hydrant with pressure rating of 125 psig (860 kPa). Refer to plumbing schedule for further information.

2.12 WHEEL-HANDLE WALL HYDRANTS

A. Available Manufacturers:
1. B & K Industries, Inc.

2. NIBCO INC.
3. Sioux Chief Manufacturing Co., Inc.
4. Watts Industries, Inc.; Water Products Div.
5. Woodford Manufacturing Co.
6. Zurn Industries, Inc.; Jonespec Div.

B. Refer to plumbing schedule for further information.

2.13 NONDRAINING NONFREEZE POST HYDRANTS

A. General: All-metal lever operation with nondraining water-storage reservoir, designed without drain and to be freezeproof with components of at least length required for burial of valve and water storage reservoir below frost line. Refer to plumbing schedule for further information.

2.14 TRAP SEAL PRIMER VALVES

A. Supply-Type Trap Seal Primer Valves: ASSE 1018, water-supply-fed type, with the following characteristics:

1. Available Manufacturers:
   a. Josam Co.
   b. MIFAB Manufacturing, Inc.
   c. Precision Plumbing Products, Inc.
   d. Smith.
   e. Wade.
   f. Watts Industries, Inc.
   g. Zurn Industries.

2. 125-psig (860-kPa) minimum working pressure.
3. Bronze body with atmospheric-vented drain chamber.
4. Inlet and Outlet Connections: NPS 1/2 (DN 15) threaded, union, or solder joint.
5. Gravity Drain Outlet Connection: NPS 1/2 (DN 15) threaded or solder joint.
6. Finish: Chrome plated, or rough bronze for units used with pipe or tube that is not chrome finished.

B. Drainage-Type Trap Seal Primer Valves: ASSE 1044, fixture-trap, waste-drainage-fed type, with the following characteristics:

1. Chrome-plated, cast-brass, NPS 1-1/4 (DN 32) minimum, lavatory P-trap with NPS 3/8 (DN 10) minimum, trap makeup connection.

C. Trap Seal Primer System: Factory-fabricated, automatic-operation assembly for wall mounting with the following:

1. Piping: NPS 3/4, ASTM B 88, Type L (DN 20, ASTM B 88M, Type B); copper, water tubing inlet and manifold with number of NPS 1/2 (DN 15) outlets as indicated.
2. Cabinet: Steel box with stainless-steel cover.
3. Electric Controls: 24-hour timer, solenoid valve, and manual switch for 120-V ac power.
4. Water Hammer Arrester: ASSE 1010.
5. Vacuum Breaker: ASSE 1001.

2.15 DRAIN VALVES

A. Hose-End Drain Valves: MSS SP-110, NPS 3/4 (DN 20) ball valve, rated for 400-psig (2760-kPa) minimum CWP. Include two-piece, copper-alloy body with standard port, chrome-plated brass ball, replaceable seats and seals, blowout-proof stem, and vinyl-covered steel handle.

1. Inlet: Threaded or solder joint.
2. Outlet: Short-threaded nipple with ASME B1.20.7, garden-hose threads and cap.

B. Hose-End Drain Valve: MSS SP-80, gate valve, Class 125, ASTM B 62 bronze body, with NPS 3/4 (DN 20) threaded or solder-joint inlet and ASME B1.20.7, garden-hose threads on outlet and cap. Hose bibbs are prohibited for this application.

C. Stop-and-Waste Drain Valves: MSS SP-110, ball valve, rated for 200-psig (1380-kPa) minimum CWP or MSS SP-80, Class 125, gate valve; ASTM B 62 bronze body, with NPS 1/8 (DN 6) side drain outlet and cap.

2.16 BACKWATER VALVES

A. Available Manufacturers:

1. Josam Co.
2. Smith, Jay R. Mfg. Co.
3. Watts Industries, Inc.; Drainage Products Div.
4. Zurn Industries, Inc.; Specification Drainage Operation.

B. Horizontal Backwater Valves: ASME A112.14.1, cast-iron body, with removable bronze swing-check valve and threaded or bolted cover.

1. Closed-Position Check Valve: Factory assembled or field modified to hang closed unless subject to backflow condition.
2. Open-Position Check Valve: Factory assembled or field modified to hang open for airflow.
3. Extension: ASTM A 74, Service class; full-size, cast-iron, soil-pipe extension to field-installed cleanout at floor, instead of cover.

C. Drain Outlet Backwater Valves: Cast-iron or bronze body, with removable ball float, threaded inlet, and threaded or spigot outlet for installation in bottom outlet of floor drain.

2.17 MISCELLANEOUS PIPING SPECIALTIES

A. Water Hammer Arresters: ASSE 1010 or PDI-WH 201, metal-bellows type with pressurized metal cushioning chamber. Sizes indicated are based on ASSE 1010 or PDI-WH 201, Sizes A through F.

1. Available Manufacturers:

    a. Josam Co.
    b. Smith, Jay R. Mfg. Co.
    c. Tyler Pipe; Wade Div.
    d. Zurn Industries, Inc.; Specification Drainage Operation.

B. Water Hammer Arresters: ASSE 1010 or PDI-WH 201, piston type with pressurized metal-tube cushioning chamber. Sizes indicated are based on ASSE 1010, Sizes AA and A through F or PDI-WH 201, Sizes A through F.

1. Available Manufacturers:
    a. Josam Co.
    b. Precision Plumbing Products, Inc.
    c. Sioux Chief Manufacturing Co., Inc.
    d. Watts Industries, Inc.
    e. Zurn Industries, Inc.

C. Hose Bibbs: Bronze body with replaceable seat disc complying with ASME A112.18.1M for compression-type faucets. Include NPS 1/2 or NPS 3/4 (DN 15 or DN 20) threaded or solder-joint inlet, of design suitable for pressure of at least 125 psig (860 kPa); integral nonremovable, drainable hose-connection vacuum breaker; and garden-hose threads complying with ASME B1.20.7 on outlet.

1. Finish for Equipment Rooms: Rough bronze, or chrome or nickel plated.
2. Finish for Service Areas: Rough bronze.
3. Finish for Finished Rooms: Chrome or nickel plated.

4. Operation for Equipment Rooms: Wheel handle or operating key.
5. Operation for Service Areas: Operating key.
6. Operation for Finished Rooms: Operating key.
7. Include operating key with each operating-key hose bibb.
8. Include wall flange with each chrome- or nickel-plated hose bibb.

D. Air Vents: Float type for automatic air venting.

1. Bolted Construction: Bronze body with replaceable, corrosion-resistant metal float and stainless-steel mechanism and seat; threaded NPS 3/8 (DN 10) minimum inlet; 125-psig (860-kPa) minimum pressure rating at 140 deg F (60 deg C); and threaded vent outlet.
2. Welded Construction: Stainless-steel body with corrosion-resistant metal float, stainless-steel mechanism and seat, threaded NPS 3/8 (DN 10) minimum inlet, 150-psig (1035-kPa) minimum pressure rating, and threaded vent outlet.

E. Air-Admittance Valves: Plastic housing with mechanical-operation sealing diaphragm, designed to admit air into drainage and vent piping and to prevent transmission of sewer gas into building.

1. Available Manufacturers:

    a. B & K Industries, Inc.
    b. IPS Corporation.
    c. J & B Products.
    d. Oatey.
    e. Sioux Chief Manufacturing Co., Inc.

2. Stack Vent Valve: ASSE 1050, designed for installation as terminal on soil, waste, and vent stacks, instead of stack vent extending through roof, in NPS 2 to NPS 4 (DN 50 to DN 100).
3. Fixture Vent Valve: ASSE 1051, designed for installation on waste piping, instead of vent connection, for single fixture, in NPS 1-1/4 to NPS 2 (DN 32 to DN 50).

F. Roof Flashing Assemblies: Manufactured assembly made of 4-lb/sq. ft., 0.0625-inch- thick, lead flashing collar and skirt extending at least 8 inches from pipe with galvanized steel boot reinforcement, and counterflashing fitting.

1. Available Manufacturers:
2. Manufacturers:

    a. Acorn Engineering Company; Elmdor/Stoneman Div.

3. Open-Top Vent Cap: Without cap.

4. Low-Silhouette Vent Cap: With vandal-proof vent cap.
5. Extended Vent Cap: With field-installed, vandal-proof vent cap.

G. Open Drains: Shop or field fabricate from ASTM A 74, Service class, hub-and-spigot, cast-iron, soil-pipe fittings. Include P-trap, hub-and-spigot riser section; and where required, increaser fitting, joined with ASTM C 564, rubber gaskets.

H. Deep-Seal Traps: Cast-iron or bronze casting, with inlet and outlet matching connected piping and cleanout trap seal primer valve connection.

1. NPS 2 (DN 50): 4-inch- (100-mm-) minimum water seal.
2. NPS 2-1/2 (DN 65) and Larger: 5-inch- (125-mm-) minimum water seal.

I. Floor-Drain Inlet Fittings: Cast iron, with threaded inlet and threaded or spigot outlet, and trap seal primer valve connection.

J. Fixed Air-Gap Fittings: Manufactured cast-iron or bronze drainage fitting with semiopen top with threads or device to secure drainage inlet piping in top and bottom spigot or threaded outlet larger than top inlet. Include design complying with ASME A112.1.2 that will provide fixed air gap between installed inlet and outlet piping.

K. Stack Flashing Fittings: Counterflashing-type, cast-iron fitting, with bottom recess for terminating roof membrane, and with threaded or hub top for extending vent pipe.

L. Vent Caps: Cast-iron body with threaded or hub inlet and vandal-proof design. Include vented hood and set-screws to secure to vent pipe.

M. Vent Terminals: Commercially manufactured, shop- or field-fabricated, frost-proof assembly constructed of galvanized steel, copper, or lead-coated copper. Size to provide 1-inch (25-mm) enclosed air space between outside of pipe and inside of flashing collar extension, with counterflashing.

N. Expansion Joints: ASME A112.21.2M, assembly with cast-iron body with bronze sleeve, packing gland, and packing; of size and end types corresponding to connected piping.

O. Downspout Boots: ASTM A 48 (ASTM A 48M), gray-iron casting, with NPS 4 (DN 100) outlet; shop-applied bituminous coating; and inlet size to match downspout.

P. Downspout Boots: ASTM A 74, Service class, hub-and-spigot, cast-iron soil pipe.

Q. Conductor Nozzles: Bronze body with threaded inlet for connected conductor size, and bronze wall flange with mounting holes.

1. Finish: Nickel bronze.

2.18 SLEEVE PENETRATION SYSTEMS

A. Available Manufacturers:

1. ProSet Systems, Inc.

B. Description: UL 1479, through-penetration firestop assembly consisting of sleeve and stack fitting with firestopping plug.

1. Sleeve: Molded PVC plastic, of length to match slab thickness and with integral nailing flange on one end for installation in cast-in-place concrete slabs.
2. Stack Fitting: ASTM A 48 (ASTM A 48M), gray-iron, hubless-pattern, wye-branch stack fitting with neoprene O-ring at base and gray-iron plug in thermal-release harness in branch. Include PVC protective cap for plug.

a. Special Coating: Include corrosion-resistant interior coating on fittings for plastic chemical waste and vent stacks.

2.19 FLASHING MATERIALS

A. Lead Sheet: ASTM B 749, Type L51121, copper bearing, with the following minimum weights and thicknesses, unless otherwise indicated:

1. General Use: 4-lb/sq. ft. (20-kg/sq. m), 0.0625-inch (1.6-mm) thickness.
2. Vent Pipe Flashing: 3-lb/sq. ft. (15-kg/sq. m), 0.0469-inch (1.2-mm) thickness.
3. Burning: 6-lb/sq. ft. (30-kg/sq. m), 0.0938-inch (2.4-mm) thickness.

B. Copper Sheet: ASTM B 152 (ASTM B 152M), of the following minimum weights and thicknesses, unless otherwise indicated:

1. General Applications: 12 oz./sq. ft. (3.7 kg/sq. m or 0.41-mm thickness).
2. Vent Pipe Flashing: 8 oz./sq. ft. (2.5 kg/sq. m or 0.27-mm thickness).

C. Zinc-Coated Steel Sheet: ASTM A 653/A 653M, with 0.20 percent copper content and 0.04-inch (1.01-mm) minimum thickness, unless otherwise indicated. Include G90 (Z275) hot-dip galvanized, mill-phosphatized finish for painting if indicated.

D. Elastic Membrane Sheet: ASTM D 4068, flexible, chlorinated polyethylene, 40-mil (1.01-mm) minimum thickness.

E. Fasteners: Metal compatible with material and substrate being fastened.

F. Metal Accessories: Sheet metal strips, clamps, anchoring devices, and similar accessory units required for installation; matching or compatible with material being installed.

G. Solder: ASTM B 32, lead-free alloy.

H. Bituminous Coating: SSPC-Paint 12, solvent-type, bituminous mastic.

2.20 CLEANOUTS

A. Cleanouts,: Comply with ASME A112.3.1.

1. Application: Floor cleanout and wall cleanout.
2. Manufacturer:
    a. Josam Co.
    b. Smith.
    c. Wade.
    d. Zurn.
3. Refer to Plumbing Schedule for Specification Standards.

2.21 FLOOR DRAINS

A. Floor Drains,: Comply with ASME A112.3.1.

1. Application: Floor drain.
2. Manufacturer:
    a. Josam Co.
    b. MiFab.
    c. Smith.
    d. Wade Div.
    e. Zurn Industries.
3. Refer to Plumbing Schedule for Specification Standards.

2.22 TRENCH DRAINS

A. Trench Drains: Comply with ASME A112.3.1.
1. Manufacturer:

a. Josam Co.
b. Smith.
c. Wade Div.
d. Zurn Industries.

2. Refer to Plumbing Schedule for Specification Standards.

2.23 ROOF DRAINS

A. Roof Drains,: Comply with ASME A112.3.1.

1. Application: Roof drain.
2. Manufacturer:

a. Josam Co.
b. Smith.
c. Wade Div.
d. Zurn Industries.

3. Refer to Plumbing Schedule for Specification Standards.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Refer to Division 15 Section "Basic Mechanical Materials and Methods" for piping joining materials, joint construction, and basic installation requirements.

B. Install backflow preventers in each water supply to mechanical equipment and systems and to other equipment and water systems that may be sources of contamination. Comply with authorities having jurisdiction.

1. Locate backflow preventers in same room as connected equipment or system.
2. Install drain for backflow preventers with atmospheric-vent drain connection with air-gap fitting, fixed air-gap fitting, or equivalent positive pipe separation of at least two pipe diameters in drain piping and pipe to floor drain. Locate air-gap device attached to or under backflow preventer. Simple air breaks are not acceptable for this application.
3. Do not install bypass piping around backflow preventers.

C. Install pressure regulators with inlet and outlet shutoff valves and balance valve bypass. Install pressure gages on inlet and outlet.

D. Install strainers on supply side of each control valve, pressure regulator, and solenoid valve.

E. Install draining-type ground and ground post hydrants with 1 cu. yd. of crushed gravel around drain hole.

1. Set ground hydrants with box flush with grade.
2. Set post hydrants in concrete paving or in 1 cu. ft. of concrete block at grade.

F. Install trap seal primer valves with outlet piping pitched down toward drain trap a minimum of 1 percent and connect to floor-drain body, trap, or inlet fitting. Adjust valve for proper flow.

G. Install backwater valves in building drain piping. For interior installation, provide cleanout deck plate flush with floor and centered over backwater valve cover, and of adequate size to remove valve cover for servicing.

H. Install expansion joints on vertical risers, stacks, and conductors if indicated.

I. Install cleanouts in aboveground piping and building drain piping according to the following, unless otherwise indicated:

1. Size same as drainage piping up to NPS 4 (DN 100). Use NPS 4 (DN 100) for larger drainage piping unless larger cleanout is indicated.
2. Locate at each change in direction of piping greater than 45 degrees.
3. Locate at minimum intervals of 50 feet (15 m) for piping NPS 4 (DN 100) and smaller and 100 feet (30 m) for larger piping.
4. Locate at base of each vertical soil and waste stack.

J. Install cleanout deck plates with top flush with finished floor, for floor cleanouts for piping below floors.

K. Install cleanout wall access covers, of types indicated, with frame and cover flush with finished wall, for cleanouts located in concealed piping.

L. Install flashing flange and clamping device with each stack and cleanout passing through floors with waterproof membrane.

M. Install vent flashing sleeves on stacks passing through roof. Secure over stack flashing according to manufacturer's written instructions.

N. Install floor drains at low points of surface areas to be drained. Set grates of drains flush with finished floor, unless otherwise indicated.

1. Position floor drains for easy access and maintenance.

2. Set floor drains below elevation of surrounding finished floor to allow floor drainage. Set with grates depressed according to the following drainage area radii:

    a. Radius, 30 Inches (750 mm) or Less: Equivalent to 1 percent slope, but not less than 1/4-inch (6.35-mm) total depression.
    b. Radius, 30 to 60 Inches (750 to 1500 mm): Equivalent to 1 percent slope.
    c. Radius, 60 Inches (1500 mm) or Larger: Equivalent to 1 percent slope, but not greater than 1-inch (25-mm) total depression.

3. Install floor-drain flashing collar or flange so no leakage occurs between drain and adjoining flooring. Maintain integrity of waterproof membranes where penetrated.
4. Install individual traps for floor drains connected to sanitary building drain, unless otherwise indicated.

O. Install roof drains at low points of roof areas according to roof membrane manufacturer's written installation instructions.

1. Install roof-drain flashing collar or flange so no leakage occurs between drain and adjoining roofing. Maintain integrity of waterproof membranes where penetrated.
2. Position roof drains for easy access and maintenance.

P. Install interceptors, including trapping, venting, and flow-control fitting, according to authorities having jurisdiction and with clear space for servicing.

1. Above-Floor Installation: Set unit with bottom resting on floor, unless otherwise indicated.
2. Flush with Floor Installation: Set unit and extension, if required, with cover flush with finished floor.
3. Recessed Floor Installation: Set unit in receiver housing having bottom or cradle supports, with receiver housing cover flush with finished floor.
4. Install cleanout immediately downstream from interceptors not having integral cleanout on outlet.
5. Coordinate oil-interceptor storage tank and gravity drain with Division 2 Section "Fuel-Oil Distribution."

Q. Fasten wall-hanging plumbing specialties securely to supports attached to building substrate if supports are specified and to building wall construction if no support is indicated.

R. Fasten recessed-type plumbing specialties to reinforcement built into walls.

S. Install wood-blocking reinforcement for wall-mounting and recessed-type plumbing specialties.

T. Install individual shutoff valve in each water supply to plumbing specialties. Use ball, gate, or globe valve if specific valve is not indicated. Install shutoff valves in accessible locations. Refer to Division 15 Section "Valves" for general-duty ball, butterfly, check, gate, and globe valves.

U. Install air vents at piping high points. Include ball, gate, or globe valve in inlet.

V. Install traps on plumbing specialty drain outlets. Omit traps on indirect wastes unless trap is indicated.

W. Install escutcheons at wall, floor, and ceiling penetrations in exposed finished locations and within cabinets and millwork. Use deep-pattern escutcheons if required to conceal protruding pipe fittings.

3.2 CONNECTIONS

A. Piping installation requirements are specified in other Division 15 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to equipment to allow service and maintenance.

C. Connect plumbing specialties to piping specified in other Division 15 Sections.

D. Ground equipment.

E. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

F. Connect plumbing specialties and devices that require power according to Division 16 Sections.

G. Interceptor Connections: Connect piping, flow-control fittings, and accessories.

1. Grease Interceptors: Connect inlet and outlet to unit, and flow-control fitting and vent to unit inlet piping. Install valve on outlet of automatic drawoff-type unit.
2. Oil Interceptors: Connect inlet, outlet, vent, and gravity drawoff piping to unit; flow-control fitting and vent to unit inlet piping; and gravity drawoff and suction piping to oil storage tank.
3. Solids Interceptors: Connect inlet and outlet.

3.3 FLASHING INSTALLATION

A. Fabricate flashing from single piece unless large pans, sumps, or other drainage shapes are required. Join flashing according to the following if required:

1. Lead Sheets: Burn joints of lead sheets 6-lb/sq. ft. (30-kg/sq. m), 0.0938-inch (2.4-mm) thickness or thicker. Solder joints of lead sheets 4-lb/sq. ft. (20-kg/sq. m), 0.0625-inch (1.6-mm) thickness or thinner.
2. Copper Sheets: Solder joints of copper sheets.

B. Install sheet flashing on pipes, sleeves, and specialties passing through or embedded in floors and roofs with waterproof membrane.

1. Pipe Flashing: Sleeve type, matching pipe size, with minimum length of 10 inches (250 mm), and skirt or flange extending at least 8 inches (200 mm) around pipe.
2. Sleeve Flashing: Flat sheet, with skirt or flange extending at least 8 inches (200 mm) around sleeve.
3. Embedded Specialty Flashing: Flat sheet, with skirt or flange extending at least 8 inches (200 mm) around specialty.

C. Set flashing on floors and roofs in solid coating of bituminous cement.

D. Secure flashing into sleeve and specialty clamping ring or device.

E. Install flashing for piping passing through roofs with counterflashing or commercially made flashing fittings, according to Division 7 Section "Sheet Metal Flashing and Trim."

F. Extend flashing up vent pipe passing through roofs and turn down into pipe, or secure flashing into cast-iron sleeve having calking recess.

G. Fabricate and install flashing and pans, sumps, and other drainage shapes.

3.4 LABELING AND IDENTIFYING

A. Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplate or sign on or near each backflow preventer thermostatic water mixing valve water tempering valve grease interceptor and oil interceptor.

1. Text: Distinguish among multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations, in addition to identifying unit.

2. Refer to Division 15 Section "Basic Mechanical Materials and Methods Mechanical Identification" for nameplates and signs.

3.5 PROTECTION

A. Protect drains during remainder of construction period to avoid clogging with dirt and debris and to prevent damage from traffic and construction work.

B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain equipment. Refer to Division 1 Section "Closeout Procedures."

END OF SECTION 15430

SECTION 15485 - ELECTRIC WATER HEATERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following electric water heaters:
   1. Flow-control, instantaneous electric water heaters.
   2. Light-commercial electric water heaters.
   3. Water heater accessories.

1.3 SUBMITTALS

A. Product Data: For each type and size of water heater indicated. Include rated capacities, operating characteristics, furnished specialties, and accessories.

B. Shop Drawings: Diagram power, signal, and control wiring.

C. Product Certificates: For each type of commercial and instantaneous electric water heater, signed by product manufacturer.

D. Source quality-control test reports.

E. Field quality-control test reports.

F. Operation and Maintenance Data: For electric water heaters to include in emergency, operation, and maintenance manuals.

G. Warranty: Special warranty specified in this Section.

1.4 QUALITY ASSURANCE

A. Source Limitations: Obtain same type of electric water heaters through one source from a single manufacturer.

B. Product Options: Drawings indicate size, profiles, and dimensional requirements of electric water heaters and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. ASME Compliance: Where indicated, fabricate and label commercial water heater storage tanks to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.

E. Comply with NSF 61, "Drinking Water System Components - Health Effects; Sections 1 through 9," for all components that will be in contact with potable water.

1.5 COORDINATION

A. Coordinate size and location of concrete bases with Architectural and Structural Drawings.

1.6 WARRANTY

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of electric water heaters that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including storage tank and supports.
b. Faulty operation of controls.
c. Deterioration of metals, metal finishes, and other materials beyond normal use.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 LIGHT-COMMERCIAL ELECTRIC WATER HEATERS

A. Description: Comply with UL 174 for household, storage electric water heaters.

1. Manufacturers:
   a. Lochinvar Corporation.
   b. Ruud Water Heater Div.; Rheem Manufacturing Company.
   c. Smith, A. O. Water Products Company.
   d. State Industries, Inc.

2. Storage-Tank Construction: Steel, vertical arrangement.

   a. Tappings: ASME B1.20.1 pipe thread.
   b. Pressure Rating: 150 psig (1035 kPa).
   c. Interior Finish: Comply with NSF 61 barrier materials for potable-water tank linings, including extending lining material into tappings.

3. Factory-Installed Storage-Tank Appurtenances:

   a. Anode Rod: Replaceable magnesium.
   b. Dip Tube: Provide unless cold-water inlet is near bottom of tank.
   c. Drain Valve: ASSE 1005.
   d. Insulation: Comply with ASHRAE/IESNA 90.1 or ASHRAE 90.2.
   e. Jacket: Steel with enameled finish.
   f. Heat Trap Fittings: Inlet type in cold-water inlet and outlet type in hot-water outlet.
   g. Heating Elements: Two; electric, screw-in immersion type; wired for simultaneous operation, unless otherwise indicated.
   h. Temperature Control: Adjustable thermostat for each element.
   i. Safety Control: High-temperature-limit cutoff device or system.
   j. Relief Valve: ASME rated and stamped and complying with ASME PTC 25.3 for combination temperature and pressure relief valves. Include relieving capacity at least as great as heat input, and include pressure setting less than water heater working-pressure rating. Select relief valve with sensing element that extends into storage tank.

4. Special Requirements: NSF 5 construction with legs for off-floor installation.

2.3 WATER HEATER ACCESSORIES

A. Combination Temperature and Pressure Relief Valves: ASME rated and stamped and complying with ASME PTC 25.3. Include relieving capacity at least as great as heat input, and include pressure setting less than water heater

working-pressure rating. Select relief valves with sensing element that extends into storage tank.

B. Water Heater Mounting Brackets: Water heater manufacturer's factory-fabricated steel bracket for wall mounting and capable of supporting water heater and water.

C. Drain Pans: Corrosion-resistant metal with raised edge. Include dimensions not less than base of water heater and include drain outlet not less than NPS 3/4 (DN 20).

D. Piping-Type Heat Traps: Field-fabricated piping arrangement according to ASHRAE/IESNA 90.1 or ASHRAE 90.2.

E. Shock Absorbers: ASSE 1010 or PDI WH 201, Size A water hammer arrester.

2.4 SOURCE QUALITY CONTROL

A. Hydrostatically test water heater storage tanks before shipment to minimum of one and one-half times pressure rating.

B. Prepare test reports.

PART 3 - EXECUTION

3.1 WATER HEATER INSTALLATION

A. Install water heaters on concrete bases.

1. Exception: Omit concrete bases for commercial water heaters if installation on stand, bracket, suspended platform, or direct on floor is indicated.
2. Concrete base construction requirements are specified in Division 15 Section "Basic Mechanical Materials and Methods."

B. Install water heaters level and plumb, according to layout drawings, original design, and referenced standards. Maintain manufacturer's recommended clearances. Arrange units so controls and devices needing service are accessible.

C. Install combination temperature and pressure relief valves in top portion of storage tanks. Use relief valves with sensing elements that extend into tanks. Extend commercial-water-heater relief-valve outlet, with drain piping same as

domestic water piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.

D. Install combination temperature and pressure relief valves in water piping for water heaters without storage. Extend water-heater relief-valve outlet, with drain piping same as domestic water piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.

E. Install water-heater drain piping as indirect waste to spill by positive air gap into open drains or over floor drains. Install hose-end drain valves at low points in water piping for water heaters that do not have tank drains. Refer to Division 15 Section "Plumbing Specialties" for hose-end drain valves.

F. Install thermometer on outlet piping of water heaters.

G. Install thermometers on inlet and outlet piping of household, collector-to-tank, solar-electric water heaters. Refer to Division 15 Section "Meters and Gages" for thermometers.

H. Assemble and install inlet and outlet piping manifold kits for multiple water heaters. Fabricate, modify, or arrange manifolds for balanced water flow through each water heater. Include shutoff valve, thermometer in each water heater inlet and outlet, and throttling valve in each water heater outlet. Refer to Division 15 Section "Valves" for general-duty valves.

I. Install piping-type heat traps on inlet and outlet piping of water heater storage tanks without integral or fitting-type heat traps.

J. Fill water heaters with water.

3.2 CONNECTIONS

A. Piping installation requirements are specified in other Division 15 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to water heaters to allow service and maintenance. Arrange piping for easy removal of water heaters.

C. Ground equipment according to Division 16 Section "Grounding and Bonding."

D. Connect wiring according to Division 16 Section "Conductors and Cables."

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including connections. Report results in writing.

B. Perform the following field tests and inspections and prepare test reports:

1. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
2. Operational Test: After electrical circuitry has been energized, confirm proper operation.
3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

C. Remove and replace water heaters that do not pass tests and inspections and retest as specified above.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain electric water heaters. Refer to Division 1 Section "Closeout Procedures."

END OF SECTION 15485

SECTION 15732 - ROOFTOP AIR CONDITIONERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following rooftop air conditioners:

1. Cooling and heating units.

1.3 DEFINITIONS

A. DDC: Direct-digital controls.

1.4 SUBMITTALS

A. Product Data: Include manufacturer's technical data for each model indicated, including rated capacities, dimensions, required clearances, characteristics, furnished specialties, and accessories.

B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection. Prepare the following by or under the supervision of a qualified professional engineer:

1. Design Calculations: Calculate requirements for selecting vibration isolators and for designing vibration isolation bases.
2. Detail mounting, securing, and flashing of roof curb to roof structure. Indicate coordinating requirements with roof membrane system.
3. Wiring Diagrams: Power, signal, and control wiring.

C. Field quality-control test reports.

D. Operation and Maintenance Data: For rooftop air conditioners to include in emergency, operation, and maintenance manuals.

E. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

A. Product Options: Drawings indicate size, profiles, and dimensional requirements of rooftop air conditioners and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

C. Fabricate and label refrigeration system to comply with ASHRAE 15, "Safety Code for Mechanical Refrigeration."

D. Energy-Efficiency Ratio: Equal to or greater than prescribed by ASHRAE 90.1, "Energy Efficient Design of New Buildings except Low-Rise Residential Buildings."

E. Coefficient of Performance: Equal to or greater than prescribed by ASHRAE 90.1, "Energy Efficient Design of New Buildings except Low-Rise Residential Buildings."

F. ARI Certification: Units shall be ARI certified and listed.

G. ARI Compliance for Units with Capacities Less Than 135,000 Btuh: Rate rooftop air-conditioner capacity according to ARI 210/240, "Unitary Air-Conditioning and Air-Source Heat Pump Equipment."

1. Sound Power Level Ratings: Comply with ARI 270, "Sound Rating of Outdoor Unitary Equipment."

H. ARI Compliance for Units with Capacities 135,000 Btuh and More: Rate rooftop air-conditioner capacity according to ARI 340/360, "Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment."

1. Sound Power Level Ratings: Comply with ARI 270, "Sound Rating of Outdoor Unitary Equipment."

1.6 COORDINATION

A. Coordinate size, location, and installation of rooftop air-conditioner manufacturer's roof curbs and equipment supports with roof installer.

1.7 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to replace components of rooftop air conditioners that fail in materials or workmanship within specified warranty period.

1. Warranty Period for Compressors: Manufacturer's standard, but not less than five years from date of Substantial Completion.

1.8 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Fan Belts: One set for each belt-drive fan.
2. Filters: One set of filters for each unit.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
1. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2 ROOFTOP AIR CONDITIONERS

A. Manufacturers:

1. Aaon, Inc.
2. Carrier Corp.
3. Lennox Industries Inc.
4. McQuay International.
5. Trane Company (The); North American Commercial Group.
6. YORK International Corporation.

B. Description: Factory assembled and tested; designed for exterior installation; consisting of compressor, indoor and outside refrigerant coils, indoor fan and outside coil fan, refrigeration and temperature controls, filters, and dampers.

C. Casing: Galvanized-steel construction with enamel paint finish, removable panels or access doors with neoprene gaskets for inspection and access to internal parts, minimum 1/2-inch- thick 1lb neoprene-coated thermal insulation, knockouts for electrical and piping connections, exterior condensate drain connection, and lifting lugs.

D. Indoor Fan: Forward curved, centrifugal, belt driven by single-speed motor.

E. Outside Coil Fan: Aluminum propeller type, directly driven by motor.

F. Refrigerant Coils: Aluminum-plate fin and seamless copper tube in steel casing with equalizing-type vertical distributor. Provide flexible epoxy corrosion-protection coating to condenser coil.

G. Compressor: Hermetic scroll compressor with integral vibration isolators, internal overcurrent and overtemperature protection, internal pressure relief, and crankcase heater.

H. Refrigeration System:

1. Compressor.
2. Outside coil and fan.
3. Indoor coil and fan.
4. Four-way reversing valve and suction line accumulator.
5. Expansion valve with replaceable thermostatic element.
6. Refrigerant dryer.
7. High-pressure switch.
8. Low-pressure switch.
9. Thermostat for coil freeze-up protection during low-ambient temperature operation or loss of air.
10. Low-ambient switch.
11. Brass service valves installed in discharge and liquid lines.
12. Charge of refrigerant.

I. Filters: 2-inch- thick, , pleated, throwaway filters in filter rack.

J. Electric Heat: Helix-wound, nickel-chrome, electric-resistance elements, factory wired for single-point wiring connection; with time delay for element staging, and overcurrent and overheat protective devices.

K. Outside-Air Damper: Linked damper blades, for 0 to 25 percent outside air, spring-return damper motor and hood.

L. Power Connection: Provide for single connection of power to unit with control-circuit transformer with built-in circuit breaker.

M. Unit Controls: Solid-state control board and components contain at least the following features:

1. Indoor fan on/off delay.
2. Default control to ensure proper operation after power interruption.
3. Service relay output.
4. Unit diagnostics and diagnostic code storage.
5. Field-adjustable control parameters.
6. Electric heat staging.
7. Minimum run time.
8. Night setback mode.
9. Return-air temperature limit.
10. Smoke alarm with smoke detector installed in supply and return air.
11. Low-refrigerant pressure control.
12. Digital display of outside temperature, supply-air temperature, return-air temperature, economizer damper position, indoor-air quality, and control parameters.

N. Thermostat: Electronic; with heating setback and cooling setup with seven-day programming; and the following:

1. Touch sensitive keyboard.
2. Automatic switching.
3. Deg F readout.
4. LED indicators.
5. Hour/day programming.
6. Manual override capability.
7. Time and operational mode readout.
8. Status indicator.
9. Subbase with manual system switch (on-heat-auto-cool) and fan switch (auto-on).
10. Fan-proving switch to lock out unit if fan fails.

O. Roof Curb: Steel with corrosion-protection coating, gasketing, and factory-installed wood nailer; complying with NRCA standards; minimum height of 14 inches.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install units level and plumb, maintaining manufacturer's recommended clearances.

B. Curb Support: Install roof curb on roof structure, level and secure, according to ARI Guideline B. Install and secure rooftop air conditioners on curbs and coordinate roof penetrations and flashing with roof construction. Secure units to curb support with anchor bolts.

C. Unit Support: Install unit level on structural curbs. Coordinate wall penetrations and flashing with wall construction. Secure units to structural support with anchor bolts.

3.2 CONNECTIONS

A. Piping installation requirements are specified in other Division 15 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Duct installation requirements are specified in other Division 15 Sections. Drawings indicate the general arrangement of ducts. The following are specific connection requirements:

1. Install ducts to termination in roof curb.
2. Remove roof decking only as required for passage of ducts. Do not cut out decking under entire roof curb.
3. Connect supply ducts to rooftop unit with flexible duct connectors specified in Division 15 Section "Duct Accessories."
4. Terminate return-air duct through roof structure and insulate space between roof and bottom of unit with 2-inch- thick, acoustic duct liner.
5. Install normal-weight, 3000 psi, compressive strength (28-day) concrete mix inside roof curb, 4 inches thick. Concrete, formwork, and reinforcement are specified in Division 3.

C. Electrical System Connections: Comply with applicable requirements in Division 16 Sections for power wiring, switches, and motor controls.

D. Ground equipment according to Division 16 Section "Grounding and Bonding."

E. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.

B. Perform the following field quality-control tests and inspections and prepare test reports:

1. After installing rooftop air conditioners and after electrical circuitry has been energized, test units for compliance with requirements.
2. Inspect for and remove shipping bolts, blocks, and tie-down straps.
3. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

C. Remove malfunctioning units, replace with new units, and retest as specified above.

3.4 STARTUP SERVICE

A. Engage a factory-authorized service representative to perform startup service.

B. Complete installation and startup checks according to manufacturer's written instructions and do the following:

1. Inspect for visible damage to unit casing.
2. Inspect for visible damage to compressor, air-cooled outside coil, and fans.
3. Inspect internal insulation.
4. Verify that labels are clearly visible.
5. Verify that clearances have been provided for servicing.
6. Verify that controls are connected and operable.
7. Verify that filters are installed.
8. Clean outside coil and inspect for construction debris.
9. Adjust vibration isolators.
10. Lubricate bearings on fan.
11. Inspect fan-wheel rotation for movement in correct direction without vibration and binding.
12. Adjust fan belts to proper alignment and tension.
13. Start unit according to manufacturer's written instructions.

    a. Start refrigeration system in summer only.
    b. Complete startup sheets and attach copy with Contractor's startup report.

14. Inspect and record performance of interlocks and protective devices; verify sequences.
15. Operate unit for an initial period as recommended or required by manufacturer.

16. Calibrate thermostats.
17. Adjust and inspect high-temperature limits.
18. Inspect outside-air dampers.
19. Start refrigeration system and measure and record the following:

    a. Coil leaving-air, dry- and wet-bulb temperatures.
    b. Coil entering-air, dry- and wet-bulb temperatures.
    c. Outside-air, dry-bulb temperature.
    d. Outside-air-coil, discharge-air, dry-bulb temperature.

20. Inspect controls for correct sequencing of heating, mixing dampers, refrigeration, and normal and emergency shutdown.
21. Measure and record the following minimum and maximum airflows. Plot fan volumes on fan curve.

    a. Supply-air volume.
    b. Return-air volume.
    c. Relief-air volume.
    d. Outside-air intake volume.

22. Simulate maximum cooling demand and inspect the following:
    a. Short circuiting of air through outside coil or from outside coil to outside-air intake.

23. After startup and performance testing, change filters, vacuum cooling and outside coils, lubricate bearings, adjust belt tension, and inspect operation of power vents.

3.5 ADJUSTING

A. Adjust initial temperature and humidity set points.

B. Set field-adjustable switches and circuit-breaker trip ranges as indicated.

C. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to site outside normal occupancy hours for this purpose, without additional cost.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain rooftop air conditioners. Refer to Division 1 Section "Closeout Procedures."

END OF SECTION 15732

SECTION 15736 – DUCT-FREE SPLIT SYSTEMS

Part 1 – General

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections; apply to this Section

1.02 SUMMARY

A. This Section includes Inverter Driven variable capacity, heat pump air conditioning split system.
    1. Wall-mounted indoor units
    2. Ceiling-mounted indoor units
    3. Outdoor condensing units

1.03 SUBMITTALS

A. Product Data: Include rated capacities, operating characteristics, furnished specialties, and accessories
B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection
    1. Wiring Diagreams: Power, signal, and control wiring.
    2. Dimensioned outline drawings of equipment unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
    3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
C. Operation and Maintenance Data: For computer-room air-conditioning units to include in emergency, operation, and maintenance manuals.

1.04 QUALITY ASSURANCE

A. The units shall be listed by Electrical Laboratories (ETL) and bear the ETL label.
B. All wiring shall be in accordance with the National Electric Code (NEC).
C. The shall be rated in accordance with Air Conditioning Refrigeration Institute's (ARI) Standard 210 and bear the ARI label
D. The system will be produced in an ISO 9001 and ISO 14001 facility, which are standards set by the International Standard Organization (ISO). The system shall be factory tested for safety and function.
E. The outdoor unit will be factory charged for a length of 33 feet of refrigerant with R410A refrigerant.
F. A dry air holding charge shall be provided in the evaporator.

1.05 DELIVERY, STORAGE AND HANDLING

A. Unit shall be stored and handled according to the manufacturer's recommendations.

1.06 WARRANTY

A. Wall-mount units and associated condensing units:
    1. Units shall have a (5) year manufacturer's warranty from date of installation.
    2. Compressor shall have a (7) year manufacturer's warranty from date of installation
    3. Units shall have a (1) year limited labor warranty from date of installation.
B. Ceiling Cassette indoor units and associated condensing units:
    1. Units shall have a (1) year manufacturer's warranty from date of installation.
    2. Compressor shall have a (6) year manufacturer's warranty from date of installation
    3. Units shall have a (1) year limited labor warranty from date of installation.
C. During the stated period, should any part fail due to defects in material and/or workmanship, it shall be repaired or replaced. Manufacturer's labor warranty shall only cover the first year. Extended warranties are for parts only.

Part 2 – Performance

2.01 MANUFACTURERS

A. Daikin AC, contact Perry Mechanical Systems 956-683-1458
B. Samsung
C. Sanyo
D. TRANE
E. CARRIER
F. YORK

2.02 PERFORMANCE

A. The system performance shall be in accordance with ARI 210/240 test conditions as shown in the performance table below.
B. The cooling performance is based on 80°F DB / 67°F WB for the indoor unit and 95°F DB / 75°F WB for the outdoor unit and 25 feet of piping.
C. The heating performance is based on 70°F DB / 60°F WB for the indoor unit and 47°F DB / 43°F WB for the outdoor unit and 25 feet of piping.

2.03 INDOOR UNIT – WALL MOUNT (3/4-ton to 2-ton)

General:

The indoor unit shall be factory assembled and pre-wired with all necessary electronic and refrigerant controls. Both liquid and suction lines must be individually insulated between the outdoor and indoor units. The unit shall have a self diagnostic function, 3-minute time delay mechanism, and have a factory pre-charge of R410A adequate for 33 feet of total length.

A. Unit Cabinet:
    1. The indoor unit shall have a white, “flat screen” finish.
    2. The drain and refrigerant piping shall be accessible from six (6) positions for flexible installation (right side, right back, and right bottom; and left side, left back, and left bottom.
    3. The cabinet shall be supplied with a mounting plate to be installed onto a wall for securely mounting the cabinet.
    4. The cabinet includes an “intelligent-eye” motion sensor capable of setting back the set point temperature for energy savings. This feature may be disengaged on the wireless remote controller.
B. Fan:
    1. The evaporator fan shall be an assembly consisting of a direct-driven fan by a single motor.
    2. The fan shall be statically and dynamically balanced and operate on a motor with permanent lubricated bearings.
    3. Provide an auto-swing louver for adjustable air flow both vertically and horizontally via the wireless remote control furnished with each system.
    4. The indoor fan shall offer a choice of three speeds, High, Medium, and Low.
C. Filter:
    1. The return air filter provided will be a mildew proof, removable and washable filter.
D. Coil:
    1. The evaporator coil shall be a nonferrous, aluminum fin on copper tube heat exchanger.
    2. All tube joints shall be brazed with silver alloy or phoscopper.
    3. All coils shall be factory pressure tested.
    4. A condensate pan shall be provided under the coil with a drain connection.
E. Electrical:
    1. The outdoor unit shall be powered with 208/230 volts, 1 phase, and 60 hertz power. The indoor unit shall received 208/230 volt, 1 phase, 60 hertz power from the outdoor unit.
    2. The allowable voltage range shall be 187 volts to 253 volts.
F. Control:
    1. The unit shall have a wireless remote infra-red controller capable to operate the system. It shall have Automatic Operation, Dry Operation and Fan Only Operation.

2. The infrared remote controller shall consist of an On/Off Power switch, Mode Selector, Silent Button (for outdoor unit), Fan Setting, Swing Louver, On/Off Timer Setting, Temperature Adjustment, “Intelligent Eye” sensor, Home Leave Operation, Powerful Operation.
    i. On/Off switch power the system on or off mode.
    ii. Mode selector shall operate the system in auto, cool, heat, fan or dry operation
    iii. Silent shall operation shall lower the sound level of the outdoor unit by slowing the inverter driven fan speed.
    iv. Fan setting shall provide high, medium or low fan speed.
    v. Swing louver shall adjust the airflow (horizontal and vertical) blades.
    vi. On/Off timer is used for automatically switching the unit on or off.
    vii. Temperature adjustment allows for the increase or decrease of the desired temperature.
    viii. Intelligent eye provides an infrared sensor which detects movement and adjusts the temperature by 3.6°F up or down depending on operating mode.
    ix. Home leave operation allows you to record your favorite temperature and airflow setting and allow the system to set back by 3°F.
    x. Powerful operation allows quick cool down or heating up in the desired space to achieve maximum desired temperature in the shortest allowable time period.
3. The infrared remote control shall perform Fault Diagnostic functions which may be system related, indoor unit or outdoor unit related depending on the fault code. Temperature range on the remote control shall be 64°F to 90°F in cooling mode and 50°F to 86°F in heating mode.
4. The indoor unit microprocessor has the capability to receive and process commands via return air temperature and indoor coil temperature sensors enabled by commands from the remote control.
5. The system has automatic restart capability after a power failure has occurred.

G. A condensate pump shall be provided and field wired to the indoor unit where scheduled.

2.04 OUTDOOR UNIT (3/4-ton to 2-ton) FOR USE WITH WALL MOUNT INDOOR UNIT

General:

The outdoor unit shall be specifically matched to the corresponding indoor unit size. The outdoor unit shall be complete factory assembled and pre-wired with all necessary electronic and refrigerant controls.

A. Unit Cabinet:

The cabinet shall be Ivory White with a finished powder coated backed enamel paint.

B. Fan
    1. The fan shall be a direct drive, propeller type fan.
    2. The motor shall be inverter drive, permanently lubricated type bearings, inherent.
    3. The fan shall be capable of operating in “silent operation” which lowers the outdoor fan speed in either cool, heat or auto modes.
    4. A fan guard is provided on the outdoor unit to prevent contact with fan operation.
    5. Airflow shall be horizontal discharge.
C. Coil
    1. The outdoor coil shall be nonferrous construction with corrugated fin tube.
    2. Refrigerant flow from the condenser will be controlled via a metering device.
    3. A corrosion resistant coil fin tube shall be provided. Coating shall be an acrylic resin and hydrophilic film, epoxy coating or Copper tube/ Copper fin.
D. Compressor:
    1. The compressor shall be rotary swing inverter-driven compressor.
    2. The outdoor unit shall have an accumulator, four-way reversing valve.
    3. The compressor shall have an internal thermal overload.
E. Electrical:
    1. The electrical power requirement is 208/230 volt, 1-phase, and 60 Hz power.
    2. The voltage range limitations shall be a minimum of 187 volts and a maximum of 253 volts.
    3. The outdoor shall be controlled by a microprocessor located in the outdoor and indoor units via commands from the infrared remote controller.
    4. Electrical power (208/230 volt) shall be provided to the indoor unit via the outdoor unit.
F. The operating range in cooling mode shall be 14°F DB to 115°F DB.
G. The operating range in heating mode shall be 0°F DB to 64°F DB.

2.05 INDOOR UNIT – CEILING CASSETTE UNIT (2-ton to 3-1/2 ton)

A. General:
The Daikin indoor unit shall be a ceiling cassette fan coil unit, operable with R410A refrigerant, equipped with an electronic expansion valve, for installation into the ceiling cavity equipped with an air panel grille. It shall use a four-way air distribution type, ivory white, impact resistant, and washable decoration panel. The supply air is distributed via motorized louvers which can be horizontally and vertically adjusted from 0° to 90°.

Computerized PID control shall be used to maintain room temperature within 1°F. The Unit shall also be equipped with a programmed drying mechanism that dehumidifies while inhibiting changes in room temperature when used with Daikin remote control BRC1C71 or BRC1D71.

B. Indoor Unit:
    1. The Daikin indoor unit shall be completely factory assembled and tested. Included in the unit is factory wiring, piping, electronic proportional expansion valve, control circuit board, fan motor thermal protector, flare connections, condensate drain pan, condensate drain pump, self-diagnostics, auto-restart function, 3-minute fused time delay, and test run switch.
    2. Indoor unit and refrigerant pipes will be charged with dehydrated air prior to shipment from the factory.
    3. Both refrigerant lines shall be insulated from the outdoor unit.
    4. The 4-way supply air flow shall be capable of field modification to 3-way and 2-way airflow to accommodate various installation configurations including corner installations.
    5. Return air shall be through the concentric panel, which includes a resin net mold resistant filter.
    6. The indoor units shall be equipped with a condensate pan and condensate pump. The condensate pump shall provide up to 21” of lift.
    7. The indoor units shall be equipped with a return air thermistor.
    8. The indoor unit will be separately powered with 208~230V/1-phase/60Hz.
    9. The voltage range will be 253 volts maximum and 187 volts minimum.

C. Unit Cabinet:
    1. The cabinet shall be space saving and shall be located into the ceiling.
    2. Three auto-swing positions shall be available to choose, which include standard, draft prevention and ceiling stain prevention.
    3. The airflow of the unit shall have the ability to shut down one or two sides allowing for simpler corner installation.
    4. Fresh air intake shall be possible by field cutting as described in Installation manual.
    5. A branch duct knockout shall exist for branch ducting supply air.
    6. The cabinet shall be constructed with sound absorbing foamed polystyrene and polyethylene insulation.
    7. Optional high efficiency air filters are available for each model unit.

D. Fan:
    1. The fan shall be direct-drive turbo fan type with statically and dynamically balanced impeller with high and low fan speeds available.

2. The fan motor shall operate on 208/230 volts, 1 phase, 60 hertz with a motor output of 0.12 HP.
3. The air flow rate shall be available in high and low settings.
4. The fan motor shall be thermally protected.

E. Filter:
1. The return air shall be filtered by means of a washable long-life filter with mildew proof resin.

F. Coil:
1. Coils shall be of the direct expansion type constructed from copper tubes expanded into aluminum fins to form a mechanical bond.
2. The coil shall be of a waffle louver fin and high heat exchange, rifled bore tube design to ensure highly efficient performance.
3. The coil shall be a 2 row cross fin copper evaporator coil with 17 FPI design completely factory tested.
4. The refrigerant connections shall be flare connections and the condensate shall be 1 -1/4 inch outside diameter PVC.
5. A condensate pan shall be located under the coil.
6. A condensate pump with a 21 inch lift shall be located below the coil in the condensate pan with a built in safety alarm.
7. A thermistor shall be located on the liquid and gas line to facilitate Superheat control and PID temperature control logic.

G. Electrical:
1. A separate power supply shall be required of 208/230 volts, 1 phase, 60 hertz. The acceptable voltage range shall be 187 to 253 volts.
2. Transmission (control) wiring between the indoor and outdoor unit shall be a maximum of 3,280 feet (total 6,560 feet).
3. Transmission (control) wiring between the indoor and remote controller shall be a maximum distance of 1,640 feet.

H. Control:
1. The unit shall have factory controls provided to perform input functions necessary to operate the system.
2. A full array of Fault Diagnostics shall be accessible via the Wired Remote Controller.

I. Accessories Required:
1. Remote “in-room” sensor kit (KRCS01-1).
   i. A wall mounted, hard wired remote sensor kit is required for ceiling-embedded type fan coils. The sensor for detecting the temperature shall be placed away from the indoor unit (branch wiring shall be included in the kit.)

2.05 OUTDOOR UNIT (2-ton to 3-1/2 ton) FOR USE WITH CEILING CASSETTES

A. General: The outdoor condensing unit is designed specifically for use with matched capacity SkyAir series indoor evaporator units of the ceiling cassette style.
1. The outdoor unit shall be factory assembled and pre-wired with all necessary electronic and refrigerant controls. The refrigeration circuit

of the condensing unit shall consist of a scroll compressor, motors, fans, condenser coil, electronic expansion valve, solenoid valves, 4 way valve, distribution headers, capillaries, filters, shut off valves, oil separators, service ports, liquid receivers and accumulators.

2. Both liquid and suction lines must be individually insulated between the outdoor and indoor units.
3. The outdoor unit can be wired and piped with outdoor unit access from left, right, front or rear.
4. The sound pressure dB(A) at rated conditions shall be a value of 58 decibels at 3 feet from the front of the unit. The outdoor unit shall be capable of operating at further reduced noise during night time.
5. The system will automatically restart operation after a power failure and will not cause any settings to be lost, thus eliminating the need for re-programming.
6. The outdoor unit shall be modular in design and should allow for side-by-side installation with minimum spacing.
7. The following safety devices shall be included on the condensing unit; high pressure switch, control circuit fuses, crankcase heaters, fusible plug, high pressure switch, overload relay, inverter overload protector, thermal protectors for compressor and fan motors, over current protection for the inverter and anti-recycling timers. To ensure the liquid refrigerant does not flash when supplying to the various fan coil units, the circuit shall be provided with a sub-cooling feature.
8. The operating range in cooling mode shall be 23°F DB to 115°F DB
9. The operating range in heating mode shall be 0°F DB to 64°F DB

B. Unit Cabinet:
   1. The outdoor unit model shall be completely weather proof and corrosion resistant. The unit shall be constructed from rust-proofed mild steel panels coated with a baked enamel finish.

C. Fan:
   1. The condensing unit shall consist of two propeller type, direct-drive fan 70 W motors that have multiple speed operation via a DC inverter type.
   2. The condensing unit fan motor shall have multiple speed operation of the DC inverter type.
   3. The fan shall be a horizontal discharge configuration with an air flow of 3,740 cfm.
   4. The fan motor shall have inherent protection and permanently lubricated bearings and be mounted.
   5. The fan motor shall be provided with a fan guard to prevent contact with moving parts.

D. Condenser Coil:
   1. The condenser coil shall be manufactured from copper tubes expanded into aluminum fins to form a mechanical bond.

2. The coil shall be of a waffle louver fin and high heat exchanger, rifled bore tube design to ensure highly efficient performance.
3. The coils shall be complete with corrosion treatment of an acrylic resin type. The thickness of the coating must be between 2.0 to 3.0 microns. Alternative corrosion treatment shall be epoxy coated coils or Copper tube/Copper fin.

E. Compressor:
1. The scroll compressor shall be variable speed (PAM inverter) controlled which is capable of changing the speed to follow the variations in total cooling load as determined by the suction gas pressure as measured in the condensing unit.
2. The inverter driven compressor in each condensing unit shall be of highly efficient reluctance DC, hermetically sealed scroll type with a maximum speed of 6,480 rpm.
3. Neodymium magnets shall be adopted in the rotor construction to yield a higher torque and efficiency in the compressor instead of the normal ferrite magnet type. At complete stop of the compressor, the neodymium magnets will position the rotor into the optimum position for a low torque start.
4. The capacity control range shall be 24% to 100%, with 20 individual capacity steps.
5. Each compressor shall be equipped with a crankcase heater, high pressure safety switch, and internal thermal overload protector.
6. The compressor shall be mounted to avoid the transmission of vibration.

F. Electrical:
1. The power supply to the outdoor unit shall be 208/230 volts, 1 phase, 60 hertz with a voltage range from 187 volts to 253 volts.
2. The control voltage between the indoor and outdoor unit shall be 16VDC non-shielded 2 conductor cable.
3. The control wiring shall be a two-wire multiplex transmission system, making it possible to connect multiple indoor units to one outdoor unit with one 2-cable wire, thus simplifying the wiring operation.

SECTION 15738 - SPLIT-SYSTEM AIR-CONDITIONING UNITS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes split-system air-conditioning units consisting of separate evaporator-fan and compressor-condenser components. Units are designed for exposed or concealed mounting, and may be connected to ducts.

1.3 SUBMITTALS

A. Product Data: Include rated capacities, furnished specialties, and accessories for each type of product indicated. Include performance data in terms of capacities, outlet velocities, static pressures, sound power characteristics, motor requirements, and electrical characteristics.

B. Shop Drawings: Diagram power, signal, and control wiring.

C. Field quality-control test reports.

D. Operation and Maintenance Data: For split-system air-conditioning units to include in emergency, operation, and maintenance manuals.

E. Warranty: Special warranty specified in this Section.

1.4 QUALITY ASSURANCE

A. Product Options: Drawings indicate size, profiles, and dimensional requirements of split-system units and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.5 COORDINATION

A. Coordinate size and location of concrete bases for units. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork are specified in Division 3 Section "Cast-in-Place Concrete."

B. Coordinate size, location, and connection details with roof curbs, equipment supports, and roof penetrations specified in Division 7 Section "Roof Accessories."

1.6 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of split-system air-conditioning units that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion on compressors.

1.7 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Filters: One set of filters for each unit.

2. Fan Belts: One set of belts for each unit.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Carrier Air Conditioning.

2. Lennox Industries.

3. McQuay Air Conditioning.

4. Trane Company.

5. York International.

2.2 EVAPORATOR-FAN COMPONENTS (FIVE TONS AND BELOW)

A. Cabinet: Enameled steel with removable panels on front and ends in manufacturer standard color.

1. Insulation: 1” high density, R 4.2.

2. Drain Pans: Polycorbonate, with connection for drain; insulated.

B. Refrigerant Coil: Copper tube, with mechanically bonded aluminum fins, complying with ARI 210/240, and with thermal-expansion valve.

C. Electric Coil: Helical, nickel-chrome, resistance-wire heating elements with refractory ceramic support bushings; automatic-reset thermal cutout; built-in magnetic contactors; manual-reset thermal cutout; airflow proving device; and one-time fuses in terminal box for overcurrent protection.

D. Fan: Centrifugal, FC.

E. Fan Motors: ECM type, pressure independent, soft start.

F. Filters: Disposable 2” pleated media.

2.3 EVAPORATOR-FAN COMPONENTS (ABOVE FIVE TONS)

A. Cabinet: Enameled steel with removable panels on front and ends in manufacturer standard color.

1. Insulation: ½”, fire-retardant with antimicrobial coating.

2. Drain Pans: PVC, with connection for drain; insulated.

B. Refrigerant Coil: Copper tube, with mechanically bonded aluminum fins, complying with ARI 210/240, and with thermal-expansion valve.

C. Electric Coil: Helical, nickel-chrome, resistance-wire heating elements with refractory ceramic support bushings; automatic-reset thermal cutout; built-in magnetic contactors; manual-reset thermal cutout; airflow proving device; and one-time fuses in terminal box for overcurrent protection.

D. Fan: Belt drive, centrifugal FC.

E. Fan Motors: Manufacturer’s standards with internal thermal overload protection or circuit breaker.

F. Filters: Disposable, 2” pleated media.

2.4 AIR-COOLED, COMPRESSOR-CONDENSER COMPONENTS (FIVE TONS AND BELOW)

A. Casing: Galvanized steel, finished with baked enamel in manufacturer-standard color, with removable panels for access to controls, weep holes for water drainage, and mounting holes in base. Provide brass service valves, fittings, and gage ports on exterior of casing.

B. Compressor: Hermetically sealed with crankcase heater and mounted on vibration isolation. Compressor motor shall have thermal- and current-sensitive overload devices, start capacitor, relay, and contactor.

1. Compressor Type: Scroll.

2. Rubber vibration isolator mounting.

C. Refrigerant Coil: Copper tube, with mechanically bonded aluminum fins, complying with ARI 210/240.

D. Fan: Propeller type, directly connected to motor.

E. Motor: Permanently lubricated, totally enclosed with integral thermal-overload protection.

2.5 AIR-COOLED, COMPRESSOR-CONDENSER COMPONENTS (ABOVE FIVE TONS)

A. Casing: Galvanized steel, finished with baked enamel in manufacturer-standard color, with removable panels for access to controls, weep holes for water drainage, and mounting holes in base. Provide heavy gauge perimeter base rail for lifting. Provide brass service valves, fittings, and gage ports on exterior of casing.

B. Compressor: Semi-hermetic or hermetically sealed as scheduled with crankcase heater and mounted on vibration isolation. Compressor motor shall have thermal- and current-sensitive overload devices, start capacitor, relay, and contactor.

1. Compressor Type: Reciprocating or scroll as scheduled.

2. Rubber vibration isolator mounting.

C. Refrigerant Coil: Copper tube, with mechanically bonded aluminum fins, complying with ARI 210/240, and with liquid subcooler. Provide flexible epoxy polymer coating uniformly to coil. Pre-coated fin stock is not acceptable.

D. Fan: Propeller type, directly connected to motor.

E. Motor: Permanently lubricated, with integral thermal-overload protection.

2.6 ACCESSORIES

A. Thermostat: Low voltage 7-day, programmable with subbase to control compressor and evaporator fan.

1. Compressor time delay.

2. 24-hour time control of system stop and start.

3. Liquid-crystal display indicating temperature, set-point temperature, time setting, operating mode, and fan speed.

4. Fan-speed selection, including auto setting.

B. Automatic-reset timer to prevent rapid cycling of compressor.

C. Refrigerant Line Kits: Soft-annealed copper suction and liquid lines factory cleaned, dried, pressurized, and sealed; factory-insulated suction line with flared fittings at both ends.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install units level and plumb.

B. Install evaporator-fan components using manufacturer's standard mounting devices securely fastened to building structure.

C. Install ground-mounting, compressor-condenser components on 4-inch- thick, reinforced concrete base; 4 inches larger on each side than unit. Concrete, reinforcement, and formwork are specified in Division 3 Section "Cast-in-Place Concrete." Coordinate anchor installation with concrete base.

D. Install ground-mounting, compressor-condenser components on polyethylene mounting base.

E. Install roof-mounting compressor-condenser components on equipment supports specified in Division 7 Section "Roof Accessories." Anchor units to supports with removable, cadmium-plated fasteners.

F. Install compressor-condenser components on restrained, spring isolators with a minimum static deflection of 1 inch. Refer to Division 15 Section "Mechanical Vibration Controls and Seismic Restraints."

G. Install and connect precharged refrigerant tubing to component's quick-connect fittings. Install tubing to allow access to unit.

3.2 CONNECTIONS

A. Install piping adjacent to unit to allow service and maintenance.

B. Duct Connections: Duct installation requirements are specified in Division 15 Section "Metal Ducts." Drawings indicate the general arrangement of ducts. Connect supply and return ducts to split-system air-conditioning units with flexible duct connectors. Flexible duct connectors are specified in Division 15 Section "Duct Accessories."

C. Ground equipment according to Division 16 Section "Grounding and Bonding."

D. Electrical Connections: Comply with requirements in Division 16 Sections for power wiring, switches, and motor controls.

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.

B. Perform the following field tests and inspections and prepare test reports:

1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.

2. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.

3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

C. Remove and replace malfunctioning units and retest as specified above.

3.4 STARTUP SERVICE

A. Engage a factory-authorized service representative to perform startup service.

1. Complete installation and startup checks according to manufacturer's written instructions.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain units. Refer to Division 1 Section "Closeout Procedures."

END OF SECTION

SECTION 15815 - METAL DUCTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Metal Ductwork.
2. Nonmetal ductwork.
3. Casing and plenums.
4. Kitchen hood ductwork.
5. Dishwasher exhaust ductwork.
6. Hangers and supports.

B. References:

1. ASTM A 36/A 36M - Standard Specification for Carbon Structural Steel; 1997a.
2. ASTM A 366/A 366M - Standard Specification for Commercial Steel (CS) Sheet, Carbon, (0.15 Maximum Percent) Cold Rolled; 1997.
3. ASTM A 569/A 569M - Standard Specification for Steel, Carbon (0.15 Maximum Percent), Hot-Rolled Sheet and Strip Commercial; 1998.
4. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 1998.
5. NFPA 90A - Standard for the Installation of Air Conditioning and Ventilating Systems; National Fire Protection Association; 1996.
6. NFPA 90B - Standard for the Installation of Warm Air Heating and Air Conditioning Systems; National Fire Protection Association; 1996.
7. NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations; National Fire Protection Association; 1994.
8. SMACNA (DCS) - HVAC Duct Construction Standards - Metal and Flexible; Sheet Metal and Air Conditioning Contractors' National Association; latest Edition.

9. UL 181 - Standard for Factory-Made Air Ducts and Air Connectors; Underwriters Laboratories Inc.; 1996.

1.3 PERFORMANCE REQUIREMENTS

A. Duct construction, including sheet metal thicknesses, seam and joint construction, reinforcements, and hangers and supports, shall comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible", latest edition and NFPA 90A.

B. Structural Performance: Duct hangers and supports shall withstand the effects of gravity loads and stresses within limits and under conditions described in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible".

C. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1-2004.

1.4 SUBMITTALS

A. Product Data: For each type of the following products:

1. Liners and adhesives.
2. Sealants and gaskets.
3. Duct Construction Standards (DCS) for each pressure class required for this project. DCS shall include transverse and longitudinal joint type, any internal or external reinforcement and sheetmetal thickness and size for each pressure class.
4. Flexible duct manufacturer, type and product details.
5. Flexible connection materials and connection types.
6. Fitting fabrication details.
7. Damper details.
8. Description of hanger types and sizes for duct sizes used in this project. Hangers must comply with the latest edition of SMACNA's "HVAC Duct Construction Standards - Metal and Flexible". Hanger submittal should include hanger spacing to be used.

B. Coordination Drawings: Provide drawings indicating fabrication, assembly, and installation, including plans, elevations, sections, components, and attachments to other work. Minimum scale of ¼” = 1’0”. Coordinate duct location with other trades.

C. Project Record Documents: Record actual locations of ducts and duct fittings. Record changes in fitting location and type. Show additional fittings used.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.

B. Installer Qualifications: Company specializing in performing the type of work specified in this section, with minimum 5 years of documented experience.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Do not install duct sealants when temperatures are less than those recommended by sealant manufacturers.

B. Maintain temperatures within acceptable range during and after installation of duct sealants.

PART 2 - PRODUCTS

2.1 SINGLE-WALL RECTANGULAR DUCTS AND FITTINGS

A. General Fabrication Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" based on indicated static-pressure class unless otherwise indicated.

B. Elbows, Transitions, Offsets, Branch Connections, and Other Duct Construction: Construct with a radius of not less than 1-1/2 times width of duct on centerline. Where not possible, provide a centerline radius of 1.0 times the width of duct. Where space constraints will not allow a centerline radius of 1.0 times the width of duct, provide rectangular elbows with double wall (airfoil) factory fabricated turning vanes installed on vane runner rails. Turning vanes shall not be used in bends other than 90 degrees.

1. Branch connections shall be 45 degree entry fittings.

C. Increase duct sizes gradually, not exceeding 15 degrees divergence wherever possible; maximum 30 degrees divergence upstream of equipment and 45 degrees convergence downstream.

2.2 DOUBLE-WALL RECTANGULAR DUCTS AND FITTINGS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. McGill AirFlow LLC.
2. SPOT
3. SEMCO

B. Rectangular Ducts: Fabricate ducts with indicated dimensions for the inner duct.

C. Outer Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" based on indicated static-pressure class unless otherwise indicated. If duct is exposed to the weather, provide a continuous sheetmetal hat channel over all transverse joints and position openings in longitudinal seams facing in the direction of possible water flow. Provide a flexible, adhesive aluminum jacket designed for this application over entire duct surface per manufacturer's recommendations.

D. Interstitial Insulation: Fibrous-glass liner complying with ASTM C 1071, NFPA 90A, or NFPA 90B; and with NAIMA AH124, "Fibrous Glass Duct Liner Standard."

1. Maximum Thermal Conductivity: 0.27 Btu x in./h x sq. ft. x deg F (0.039 W/m x K) at 75 deg F (24 deg C) mean temperature.
2. Install spacers that position the inner duct at uniform distance from outer duct without compressing insulation.
3. Coat insulation with antimicrobial coating.
4. Cover insulation with polyester film complying with UL 181, Class 1.
5. Insulation thickness to be 2 inches.

E. Inner Duct: Minimum 0.028-inch (0.7-mm) solid sheet steel.

2.3 SINGLE-WALL ROUND AND FLAT-OVAL DUCTS AND FITTINGS

A. General Fabrication Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 3, "Round, Oval, and Flexible Duct," based on indicated static-pressure class unless otherwise indicated.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Lindab Inc.

b. McGill AirFlow LLC.
c. SEMCO Incorporated.
d. Sheet Metal Connectors, Inc.
e. SPOT

B. Flat-Oval Ducts: Indicated dimensions are the duct width (major dimension) and diameter of the round sides connecting the flat portions of the duct (minor dimension).

C. Transverse Joints: Select joint types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-2, "Transverse Joints - Round Duct," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

1. Transverse Joints in Ducts Larger Than 36 Inches (1524 mm) in Diameter: Flanged.

D. Longitudinal Seams: Round and flat oval duct must be spiral seam ductwork. Longitudinal seam snap-lock duct will not be allowed.

E. Tees, Laterals and Bends: Fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-4, "90 Degree Tees and Laterals," and Figure 3-5, "Conical Tees," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

1. Elbows and bends: Construct with a radius of not less than 1-1/2 times width of duct on centerline. Where not possible, provide a centerline radius of 1.0 times the width of duct. Elbows shall be of gored, pleated or stamped construction. 90 degree bends shall be a minimum of 5-gore. 45 degree bends shall be a minimum of 3 gore. Adjustable elbows will not be allowed.

2. Branch connections shall be conical, 45 deg. entry or lateral fittings.

2.4 DOUBLE-WALL ROUND AND FLAT-OVAL DUCTS AND FITTINGS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Lindab Inc.
2. McGill AirFlow LLC.
3. SEMCO Incorporated.

4. SPOT

B. Flat-Oval Ducts: Indicated dimensions are the duct width (major dimension) and diameter of the round sides connecting the flat portions of the duct (minor dimension) of the inner duct.

C. Outer Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 3, "Round, Oval, and Flexible Duct," based on static-pressure class unless otherwise indicated.

1. Transverse Joints: Select joint types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-2, "Transverse Joints - Round Duct," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

a. Transverse Joints in Ducts Larger Than 36 Inches (1524 mm) in Diameter: Flanged.

2. Longitudinal Seams: Round and flat oval duct must be spiral seam ductwork. Longitudinal seam snap-lock duct will not be allowed.

3. Tees and Laterals: Select types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-4, "90 Degree Tees and Laterals," and Figure 3-5, "Conical Tees," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

a. Elbows and bends: Construct with a radius of not less than 1-1/2 times width of duct on centerline. Where not possible, provide a centerline radius of 1.0 times the width of duct. Elbows shall be of gored, pleated or stamped construction. 90 degree bends shall be a minimum of 5-gore. 45 degree bends shall be a minimum of 3 gore. Adjustable elbows will not be allowed.
b. Branch connections shall be conical, 45 deg. entry or lateral fittings.

D. Inner Duct: Minimum 0.028-inch (0.7-mm) solid sheet steel.

E. Interstitial Insulation: Fibrous-glass liner complying with ASTM C 1071, NFPA 90A, or NFPA 90B; and with NAIMA AH124, "Fibrous Glass Duct Liner Standard."

1. Maximum Thermal Conductivity: [0.27 Btu x in./h x sq. ft. x deg F (0.039 W/m x K)] at 75 deg F (24 deg C) mean temperature.

2. Install spacers that position the inner duct at uniform distance from outer duct without compressing insulation.
3. Coat insulation with antimicrobial coating.
4. Cover insulation with polyester film complying with UL 181, Class 1.

2.5 SHEET METAL MATERIALS

A. General Material Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.

B. Galvanized Sheet Steel: Comply with ASTM A 653/A 653M.

1. Galvanized Coating Designation: G90 (Z275).
2. Finishes for Surfaces Exposed to View: Mill phosphatized.

C. Carbon-Steel Sheets: Comply with ASTM A 1008/A 1008M, with oiled, matte finish for exposed ducts.

D. Stainless-Steel Sheets: Comply with ASTM A 480/A 480M, Type 304 or 316, as indicated in the "Duct Schedule" Article; cold rolled, annealed, sheet. Exposed surface finish shall be No. 2B, No. 2D, No. 3, or No. 4 as indicated in the "Duct Schedule" Article.

E. Aluminum Sheets: Comply with ASTM B 209 (ASTM B 209M) Alloy 3003, H14 temper; with mill finish for concealed ducts, and standard, one-side bright finish for duct surfaces exposed to view.

F. Tie Rods: Galvanized steel, 3/8-inch (10-mm) minimum diameter.

2.6 DUCT LINER

A. Fibrous-Glass Duct Liner: Comply with ASTM C 1071, NFPA 90A, or NFPA 90B; and with NAIMA AH124, "Fibrous Glass Duct Liner Standard."

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. CertainTeed Corporation; Insulation Group.
b. Johns Manville.
c. Knauf Insulation.
d. Owens Corning.

2. Maximum Thermal Conductivity:

    a. Type I, Flexible: 0.27 Btu x in./h x sq. ft. x deg F (0.039 W/m x K) at 75 deg F (24 deg C) mean temperature.
    b. Type II, Rigid: 0.23 Btu x in./h x sq. ft. x deg F (0.033 W/m x K) at 75 deg F (24 deg C) mean temperature.

3. Antimicrobial Erosion-Resistant Coating: Apply to the surface of the liner that will form the interior surface of the duct to act as a moisture repellent and erosion-resistant coating. Antimicrobial compound shall be tested for efficacy by an NRTL and registered by the EPA for use in HVAC systems.
4. Water-Based Liner Adhesive: Comply with NFPA 90A or NFPA 90B and with ASTM C 916.

    a. For indoor applications, use adhesive that has a VOC content of 80 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. Insulation Pins and Washers:

1. Cupped-Head, Capacitor-Discharge-Weld Pins: Copper- or zinc-coated steel pin, fully annealed for capacitor-discharge welding, 0.106-inch- (2.6-mm-) diameter shank, length to suit depth of insulation indicated with integral 1-1/2-inch (38-mm) galvanized carbon-steel washer.
2. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch- (0.41-mm-) thick galvanized steel; with beveled edge sized as required to hold insulation securely in place but not less than 1-1/2 inches (38 mm) in diameter.

C. Shop Application of Duct Liner: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-19, "Flexible Duct Liner Installation."

1. Adhere a single layer of indicated thickness of duct liner with at least 90 percent adhesive coverage at liner contact surface area. Attaining indicated thickness with multiple layers of duct liner is prohibited.
2. Apply adhesive to transverse edges of liner facing upstream that do not receive metal nosing.
3. Butt transverse joints without gaps, and coat joint with adhesive.
4. Fold and compress liner in corners of rectangular ducts or cut and fit to ensure butted-edge overlapping.
5. Do not apply liner in rectangular ducts with longitudinal joints, except at corners of ducts, unless duct size and dimensions of standard liner make longitudinal joints necessary.
6. Apply adhesive coating on longitudinal seams in ducts with air velocity of 2500 fpm (12.7 m/s).

7. Secure liner with mechanical fasteners 4 inches (100 mm) from corners and at intervals not exceeding 12 inches (300 mm) transversely; at 3 inches (75 mm) from transverse joints and at intervals not exceeding 18 inches (450 mm) longitudinally.
8. Secure transversely oriented liner edges facing the airstream with metal nosings that have either channel or "Z" profiles or are integrally formed from duct wall. Fabricate edge facings at the following locations:

    a. Fan discharges.
    b. Intervals of lined duct preceding unlined duct.
    c. Upstream edges of transverse joints in ducts where air velocities are higher than 2500 fpm (12.7 m/s) or where indicated.

9. Secure insulation between perforated sheet metal inner duct of same thickness as specified for outer shell. Use mechanical fasteners that maintain inner duct at uniform distance from outer shell without compressing insulation.

    a. Sheet Metal Inner Duct Perforations: 3/32-inch (2.4-mm) diameter, with an overall open area of 23 percent.

10. Terminate inner ducts with buildouts attached to fire-damper sleeves, dampers, turning vane assemblies, or other devices. Fabricated buildouts (metal hat sections) or other buildout means are optional; when used, secure buildouts to duct walls with bolts, screws, rivets, or welds.

2.7 SEALANT AND GASKETS

A. General Sealant and Gasket Requirements: Surface-burning characteristics for sealants and gaskets shall be a maximum flame-spread index of 25 and a maximum smoke-developed index of 50 when tested according to UL 723; certified by an NRTL.

B. Water-Based Joint and Seam Sealant:

1. Application Method: Brush on.
2. Solids Content: Minimum 65 percent.
3. Shore A Hardness: Minimum 20.
4. Water resistant.
5. Mold and mildew resistant.
6. VOC: Maximum 75 g/L (less water).
7. Maximum Static-Pressure Class: 10-inch wg (2500 Pa), positive and negative.
8. Service: Indoor or outdoor.

9. Substrate: Compatible with galvanized sheet steel (both PVC coated and bare), stainless steel, or aluminum sheets.

C. Flange Gaskets: Butyl rubber, neoprene, or EPDM polymer with polyisobutylene plasticizer.

2.8 HANGERS AND SUPPORTS

A. Hanger Rods for Noncorrosive Environments: Cadmium-plated steel rods and nuts.

B. Hanger Rods for Corrosive Environments: Electrogalvanized, all-thread rods or galvanized rods with threads painted with zinc-chromate primer after installation.

C. Strap and Rod Sizes: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 4-1 (Table 4-1M), "Rectangular Duct Hangers Minimum Size," and Table 4-2, "Minimum Hanger Sizes for Round Duct."

D. Steel Cables for Galvanized-Steel Ducts: Galvanized steel complying with ASTM A 603.

E. Steel Cables for Stainless-Steel Ducts: Stainless steel complying with ASTM A 492.

F. Steel Cable End Connections: Cadmium-plated steel assemblies with brackets, swivel, and bolts designed for duct hanger service; with an automatic-locking and clamping device.

G. Duct Attachments: Sheet metal screws, blind rivets, or self-tapping metal screws; compatible with duct materials.

H. Trapeze and Riser Supports:

1. Supports for Galvanized-Steel Ducts: Galvanized-steel shapes and plates.
2. Supports for Stainless-Steel Ducts: Stainless-steel shapes and plates.
3. Supports for Aluminum Ducts: Aluminum or galvanized steel coated with zinc chromate.

2.9 Insulated Flexible Ducts

2.10 Kitchen Exhaust Ducts

2.11 Dishwasher Exhaust Ducts

PART 3 - EXECUTION

3.1 DUCT INSTALLATION

A. Drawing plans, schematics, and diagrams indicate general location and arrangement of duct system. Indicated duct locations, configurations, and arrangements were used to size ducts and calculate friction loss for air-handling equipment sizing and for other design considerations. Install duct systems as indicated unless deviations to layout are approved on Shop Drawings and Coordination Drawings.

B. Install ducts according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" unless otherwise indicated.

C. Install round and flat-oval ducts in maximum practical lengths.

D. Install ducts with fewest possible joints.

E. Install factory- or shop-fabricated fittings for changes in direction, size, and shape and for branch connections.

F. Unless otherwise indicated, install ducts vertically and horizontally, and parallel and perpendicular to building lines.

G. Install ducts close to walls, overhead construction, columns, and other structural and permanent enclosure elements of building.

H. Install ducts with a clearance of 1 inch (25 mm), plus allowance for insulation thickness.

I. Route ducts to avoid passing through transformer vaults and electrical equipment rooms and enclosures.

J. Where ducts pass through non-fire-rated interior partitions and exterior walls and are exposed to view, cover the opening between the partition and duct or duct insulation with sheet metal flanges of same metal thickness as the duct. Overlap openings on four sides by at least 1-1/2 inches (38 mm).

K. Where ducts pass through fire-rated interior partitions and exterior walls, install fire dampers. Comply with requirements in Division 15 Section "Duct Accessories" for fire and smoke dampers.

L. Protect duct interiors from moisture, construction debris and dust, and other foreign materials. Comply with SMACNA's "Duct Cleanliness for New Construction Guidelines."

3.2 INSTALLATION OF EXPOSED DUCTWORK

A. Protect ducts exposed in finished spaces from being dented, scratched, or damaged.

B. Trim duct sealants flush with metal. Create a smooth and uniform exposed bead. Do not use two-part tape sealing system.

C. Grind welds to provide smooth surface free of burrs, sharp edges, and weld splatter. When welding stainless steel with a No. 3 or 4 finish, grind the welds flush, polish the exposed welds, and treat the welds to remove discoloration caused by welding.

D. Maintain consistency, symmetry, and uniformity in the arrangement and fabrication of fittings, hangers and supports, duct accessories, and air outlets.

E. Repair or replace damaged sections and finished work that does not comply with these requirements.

3.3 ADDITIONAL INSTALLATION REQUIREMENTS FOR COMMERCIAL KITCHEN HOOD EXHAUST DUCT

A. Install commercial kitchen hood exhaust ducts without dips and traps that may hold grease, and sloped a minimum of 2 percent to drain grease back to the hood.

B. Install fire-rated access panel assemblies at each change in direction and at maximum intervals of 20 feet (6 m) in horizontal ducts, and at every floor for vertical ducts, or as indicated on Drawings. Locate access panel on top or sides of duct a minimum of 1-1/2 inches (38 mm) from bottom of duct.

C. Do not penetrate fire-rated assemblies except as allowed by applicable building codes and authorities having jurisdiction.

3.4 DUCT SEALING

A. Seal all duct according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

B. Seal ducts to the following seal classes according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible":

1. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."
2. All duct: Seal Class A.

3.5 HANGER AND SUPPORT INSTALLATION

A. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 4, "Hangers and Supports."

B. Building Attachments: Concrete inserts, powder-actuated fasteners, or structural-steel fasteners appropriate for construction materials to which hangers are being attached.

1. Where practical, install concrete inserts before placing concrete.
2. Install powder-actuated concrete fasteners after concrete is placed and completely cured.
3. Use powder-actuated concrete fasteners for standard-weight aggregate concretes or for slabs more than 4 inches (100 mm) thick.
4. Do not use powder-actuated concrete fasteners for lightweight-aggregate concretes or for slabs less than 4 inches (100 mm) thick.
5. Do not use powder-actuated concrete fasteners for seismic restraints.

C. Hanger Spacing: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 4-1 (Table 4-1M), "Rectangular Duct Hangers Minimum Size," and Table 4-2, "Minimum Hanger Sizes for Round Duct," for maximum hanger spacing; install hangers and supports within 24 inches (610 mm) of each elbow and within 48 inches (1200 mm) of each branch intersection.

D. Hangers Exposed to View: Threaded rod and angle or channel supports.

E. Support vertical ducts with steel angles or channel secured to the sides of the duct with welds, bolts, sheet metal screws, or blind rivets; support at each floor and at a maximum intervals of 16 feet (5 m).

F. Install upper attachments to structures. Select and size upper attachments with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

3.6 CONNECTIONS

A. Make connections to equipment with flexible connectors complying with Division 15 Section "Duct Accessories."

B. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for branch, outlet and inlet, and terminal unit connections.

3.7 FIELD QUALITY CONTROL

A. Perform tests and inspections.

B. Leakage Tests:

1. Comply with SMACNA's "HVAC Air Duct Leakage Test Manual." Submit a test report for each test.
2. Test the following systems:

    a. Ducts with a Pressure Class Higher Than 3-Inch wg (750 Pa): Test representative duct sections, selected by Engineer from sections installed, totaling no less than 25 percent of total installed duct area for each designated pressure class.

3. Disassemble, reassemble, and seal segments of systems to accommodate leakage testing and for compliance with test requirements.
4. Test for leaks before applying external insulation.
5. Conduct tests at static pressures equal to maximum design pressure of system or section being tested. If static-pressure classes are not indicated, test system at maximum system design pressure. Do not pressurize systems above maximum design operating pressure.
6. Give seven days' advance notice for testing.

C. Duct System Cleanliness Tests:

1. Visually inspect duct system to ensure that no visible contaminants are present.

D. Duct system will be considered defective if it does not pass tests and inspections.

E. Prepare test and inspection reports.

3.8 DUCT SCHEDULE

A. Fabricate ducts with galvanized sheet steel except as otherwise indicated and as follows:

1. Underground Ducts: Concrete-encased, PVC-coated, galvanized sheet steel.

B. Supply Ducts:

1. Ducts Connected to Fan Coil Units, Furnaces, Heat Pumps, and Terminal Units:

a. Pressure Class: Positive [1-inch wg (250 Pa)]
b. SMACNA Leakage Class for Rectangular: 12
c. SMACNA Leakage Class for Round and Flat Oval: 12

2. Ducts Connected to Constant-Volume Air-Handling Units:

a. Pressure Class: Positive 1-inch wg (500 Pa), or round up the ESP listed in the equipment schedules and provide, whichever is greater.
b. SMACNA Leakage Class for Rectangular: 12
c. SMACNA Leakage Class for Round and Flat Oval: 12

3. Ducts Connected to Variable-Air-Volume Air-Handling Units prior to terminal units:

a. Pressure Class: Positive 3-inch wg (750 Pa)
b. SMACNA Leakage Class for Rectangular: 12
c. SMACNA Leakage Class for Round and Flat Oval: 12

C. Return, toilet exhaust and outside air ducts:

1. Pressure Class: Positive or negative 1-inch wg (250 Pa).
2. SMACNA Leakage Class for Rectangular: 12
3. SMACNA Leakage Class for Round and Flat Oval: 12

D. Special Exhaust Ducts:

1. Ducts Connected to Commercial Kitchen Hoods: Comply with NFPA 96.

a. Exposed to View: Type 304, stainless-steel sheet.
b. Concealed: Type 304, stainless-steel sheet.
c. Welded seams and joints.
d. Pressure Class: Positive or negative 4-inch wg (1000 Pa).

e. Minimum SMACNA Seal Class: Welded seams, joints, and penetrations.
f. SMACNA Leakage Class: 3.
g. Minimum 18 gauge or thickness required per local code, whichever is greater

2. Ducts Connected to Dishwasher Hoods:

a. Type 304, stainless-steel sheet.
b. Welded seams and flanged joints with watertight EPDM gaskets.
c. Pressure Class: Positive or negative 2-inch wg (500 Pa).
d. Minimum SMACNA Seal Class: Welded seams, joints, and penetrations.
e. SMACNA Leakage Class: 3.
f. Minimum 18 gauge or thickness required per local code, whichever is greater

E. Duct Exposed to View

1. Supply Air Ducts: shall be double wall spiral round construction with 1" thick insulation in conditioned spaces and 2" insulation in unconditioned spaces.
2. Return and Exhaust Air Ducts: shall be un-insulated single wall spiral round construction in conditioned spaces and double wall round construction with 1" insulation in unconditioned spaces.

END OF SECTION 15815

SECTION 15820 - DUCT ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Backdraft dampers.
2. Volume dampers.
3. Motorized control dampers.
4. Fire dampers.
5. Smoke dampers.
6. Combination fire and smoke dampers.
7. Turning vanes.
8. Duct-mounting access doors.
9. Flexible connectors.
10. Flexible ducts.
11. Duct accessory hardware.
12. Louvers.

B. Related Sections include the following:

1. Division 13 Section "Fire Alarm" for duct-mounting fire and smoke detectors.

1.3 SUBMITTALS

A. Product Data: For the following:

1. Backdraft dampers.
2. Volume dampers.
3. Motorized control dampers.
4. Fire dampers.
5. Smoke dampers.
6. Combination fire and smoke dampers.

7. Turning vanes.
8. Duct-mounting access doors.
9. Flexible connectors.
10. Flexible ducts.

B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

1. Special fittings.
2. Manual-volume damper installations.
3. Motorized-control damper installations.
4. Fire-damper, smoke-damper, and combination fire- and smoke-damper installations, including sleeves and duct-mounting access doors.
5. Wiring Diagrams: Power, signal, and control wiring.

C. Coordination Drawings: Reflected ceiling plans, drawn to scale and coordinating penetrations and ceiling-mounting items. Show ceiling-mounting access panels and access doors required for access to duct accessories.

1.4 QUALITY ASSURANCE

A. Comply with NFPA 90A, "Installation of Air Conditioning and Ventilating Systems," and NFPA 90B, "Installation of Warm Air Heating and Air Conditioning Systems."

1.5 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Fusible Links: Furnish quantity equal to 10 percent of amount installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 SHEET METAL MATERIALS

A. Comply with SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods, unless otherwise indicated.

B. Galvanized Sheet Steel: Lock-forming quality; complying with ASTM A 653/A 653M and having G90 (Z275) coating designation; ducts shall have mill-phosphatized finish for surfaces exposed to view.

C. Stainless Steel: ASTM A 480/A 480M.

D. Aluminum Sheets: ASTM B 209 (ASTM B 209M), alloy 3003, temper H14; with mill finish for concealed ducts and standard, 1-side bright finish for exposed ducts.

E. Extruded Aluminum: ASTM B 221 (ASTM B 221M), alloy 6063, temper T6.

F. Reinforcement Shapes and Plates: Galvanized-steel reinforcement where installed on galvanized sheet metal ducts; compatible materials for aluminum and stainless-steel ducts.

G. Tie Rods: Galvanized steel, 1/4-inch (6-mm) minimum diameter for lengths 36 inches (900 mm) or less; 3/8-inch (10-mm) minimum diameter for lengths longer than 36 inches (900 mm).

2.3 BACKDRAFT DAMPERS

A. Manufacturers:
1. CESCO Products.
2. Greenheck.
3. Ruskin Company.

B. Description: Multiple-blade, parallel action gravity balanced, with blades of maximum 6-inch (150-mm) width, with sealed edges, assembled in rattle-free manner with 90-degree stop, steel ball bearings, and axles; adjustment device to permit setting for varying differential static pressure.

C. Frame: 20 gauge, galvanized sheet steel, with welded corners and mounting flange.

D. Blades: 0.025-inch- thick, roll-formed aluminum.

E. Blade Seals: Vinyl.

F. Blade Axles: Stainless Steel.

G. Tie Bars and Brackets: Galvanized steel.

H. Basis of Design: Ruskin S3G.

2.4 VOLUME DAMPERS

A. Manufacturers:
1. Flexmaster U.S.A., Inc.
2. METALAIRE, Inc.
3. Nailor Industries Inc.
4. Ruskin Company.

B. General Description: Factory fabricated, with required hardware and accessories. Stiffen damper blades for stability. Include locking device to hold single-blade dampers in a fixed position without vibration. Close duct penetrations for damper components to seal duct consistent with pressure class.

1. Pressure Classes of 2-Inch wg (750 Pa) or Higher: End bearings or other seals for ducts with axles full length of damper blades and bearings at both ends of operating shaft.

C. Standard Volume Dampers: Multiple- or single-blade, parallel- or opposed-blade design as indicated, standard leakage rating, with linkage outside airstream, and suitable for horizontal or vertical applications.

1. Steel Frames: Hat-shaped, galvanized sheet steel channels, minimum of 22 gauge thick, with mitered and welded corners; frames with flanges where indicated for attaching to walls and flangeless frames where indicated for installing in ducts.
2. Single Skin Steel Blades: 22 gauge, galvanized sheet steel.
3. Blade Axles: Galvanized steel.
4. Bearings: Molded synthetic.
5. Tie Bars and Brackets: Aluminum.
6. Tie Bars and Brackets: Galvanized steel.
7. Basis of Design: Ruskin MD 15 (rectangular) and MDRS25 (round).

D. Jackshaft: 1-inch- (25-mm-) diameter, galvanized-steel pipe rotating within pipe-bearing assembly mounted on supports at each mullion and at each end of multiple-damper assemblies.

1. Length and Number of Mountings: Appropriate to connect linkage of each damper in multiple-damper assembly.

E. Damper Hardware: Zinc-plated, die-cast core with dial and handle made of 3/32-inch- (2.4-mm-) thick zinc-plated steel, and a 3/4-inch (19-mm) hexagon locking nut. Include center hole to suit damper operating-rod size. Include elevated platform for insulated duct mounting.

2.5 MOTORIZED CONTROL DAMPERS

A. Manufacturers:
1. CESCO Products.
2. Greenheck.
3. METALAIRE, Inc.
4. Nailor Industries Inc.
5. Ruskin Company.

B. General Description: AMCA-rated, parallel (return air applications) or opposed (outside air applications) blade design; minimum of 16 gauge thick, galvanized-steel frames with holes for duct mounting; minimum of 16 gauge thick, galvanized-steel damper blades with maximum blade width of 8 inches (203 mm).

1. Secure blades to 1/2-inch- (13-mm-) diameter, zinc-plated axles using zinc-plated hardware, with nylon blade bearings, blade-linkage hardware of zinc-plated steel and brass, ends sealed against spring-stainless-steel blade bearings, and thrust bearings at each end of every blade.
2. Operating Temperature Range: From minus 40 to plus 200 deg F (minus 40 to plus 93 deg C).
3. Provide closed-cell neoprene edging rated for leakage at less than 10 cfm per sq. ft. of damper area, at differential pressure of 1-inch wg; when tested according to AMCA 500D.

C. Basis of Design: Ruskin CD35.

2.6 FIRE DAMPERS

A. Manufacturers:
1. CESCO Products.
2. Greenheck.
3. METALAIRE, Inc.
4. Nailor Industries Inc.
5. Ruskin Company.

B. Fire dampers shall be labeled according to UL 555.

C. Fire Rating: 1-1/2 hours (3 hours as noed).

D. Frame: Curtain type with blades outside airstream; fabricated with roll-formed, 20 gauge galvanized steel; with mitered and interlocking corners.

E. Mounting Sleeve: Factory- or field-installed, galvanized sheet steel.
   1. Minimum Thickness: 20 gauge frame complies with sleeve requirements.

F. Mounting Orientation: Vertical or horizontal as indicated.

G. Blades: 24 gauge, galvanized sheet steel. In place of interlocking blades, use full-length, 0.034-inch- (0.85-mm-) thick, galvanized-steel blade connectors.

H. Horizontal Dampers: Include blade lock and stainless-steel closure spring.

I. Fusible Links: Replaceable, 165 deg F rated.

J. Basis of Design: 1-1/2 hour – Ruskin 1BD2-B (rectangular) and FDR25 (round), 3 hour – Ruskin 1BD2-B3 (rectangular)

2.7 COMBINATION FIRE AND SMOKE DAMPERS

A. Manufacturers:
   1. CESCO Products.
   2. Greenheck.
   3. Nailor Industries Inc.
   4. Ruskin Company.

B. General Description: Labeled according to UL 555S. Combination fire and smoke dampers shall be labeled according to UL 555 for 1-1/2-hour rating.

C. Fusible Links: Replaceable, 165 deg F rated.

D. Frame and Blades16 gauge, galvanized sheet steel.

E. Mounting Sleeve: Factory-installed, galvanized sheet steel; length to suit wall or floor application.

F. Damper Motors: Modulating and two-position action.

   1. Comply with requirements in Division 15 Section "Motors."
   2. Permanent-Split-Capacitor or Shaded-Pole Motors: With oil-immersed and sealed gear trains.
   3. Spring-Return Motors: Equip with an integral spiral-spring mechanism where indicated. Enclose entire spring mechanism in a removable housing designed for service or adjustments. Size for running torque rating of 150 in. x lbf (17 N x m) and breakaway torque rating of 150 in. x lbf (17 N x m).

4. Outdoor Motors and Motors in Outside-Air Intakes: Equip with O-ring gaskets designed to make motors weatherproof. Equip motors with internal heaters to permit normal operation at minus 40 deg F (minus 40 deg C).
5. Nonspring-Return Motors: For dampers larger than 25 sq. ft. (2.3 sq. m), size motor for running torque rating of 150 in. x lbf (17 N x m) and breakaway torque rating of 300 in. x lbf (34 N x m).
6. Electrical Connection: 115 V, single phase, 60 Hz.

G. Basis of Design: Ruskin FSD376.

2.8 TURNING VANES

A. Fabricate to comply with SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" for vanes and vane runners. Vane runners shall automatically align vanes.

B. Manufactured Turning Vanes: Fabricate 1-1/2-inch- (38-mm-) wide, double-vane, curved blades of galvanized sheet steel set 3/4 inch (19 mm) o.c.; support with bars perpendicular to blades set 2 inches (50 mm) o.c.; and set into vane runners suitable for duct mounting.

C. Acoustic Turning Vanes: Fabricate airfoil-shaped aluminum extrusions with perforated faces and fibrous-glass fill.

2.9 DUCT-MOUNTING ACCESS DOORS

A. General Description: Fabricate doors airtight and suitable for duct pressure class.

B. Door: Double wall, duct mounting, and rectangular; fabricated of galvanized sheet metal with insulation fill and thickness as indicated for duct pressure class. Include vision panel where indicated. Include 1-by-1-inch (25-by-25-mm) butt or piano hinge and cam latches.

1. Manufacturers:
   a. CESCO Products.
   b. Flexmaster U.S.A., Inc.
   c. Greenheck.
   d. Nailor Industries Inc.

2. Frame: Galvanized sheet steel, with bend-over tabs and foam gaskets.
3. Provide number of hinges and locks as follows:

a. Less Than 12 Inches (300 mm) Square: Secure with two sash locks.
b. Up to 18 Inches (450 mm) Square: Two hinges and two sash locks.
c. Up to 24 by 48 Inches (600 by 1200 mm): Three hinges and two compression latches.
d. Sizes 24 by 48 Inches (600 by 1200 mm) and Larger: One additional hinge.

C. Seal around frame attachment to duct and door to frame with neoprene or foam rubber.

D. Insulation: 1-inch- (25-mm-) thick, fibrous-glass or polystyrene-foam board.

2.10 FLEXIBLE CONNECTORS

A. Manufacturers:

1. Ductmate Industries, Inc.
2. Duro Dyne Corp.
3. Ventfabrics, Inc.
4. Ward Industries, Inc.

B. General Description: Flame-retardant or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.

C. Metal-Edged Connectors: Factory fabricated with a fabric strip 3-1/2 inches wide attached to two strips of 2-3/4-inch- (70-mm-) wide, 0.028-inch- (0.7-mm-) thick, galvanized sheet steel or 0.032-inch- (0.8-mm-) thick aluminum sheets. Select metal compatible with ducts.

D. Indoor System, Flexible Connector Fabric: Glass fabric double coated with neoprene.

1. Minimum Weight: 26 oz./sq. yd. (880 g/sq. m).
2. Tensile Strength: 480 lbf/inch (84 N/mm) in the warp and 360 lbf/inch (63 N/mm) in the filling.
3. Service Temperature: Minus 40 to plus 200 deg F (Minus 40 to plus 93 deg C).

E. Outdoor System, Flexible Connector Fabric: Glass fabric double coated with weatherproof, synthetic rubber resistant to UV rays and ozone.

1. Minimum Weight: 24 oz./sq. yd. (810 g/sq. m).
2. Tensile Strength: 530 lbf/inch (93 N/mm) in the warp and 440 lbf/inch (77 N/mm) in the filling.

3. Service Temperature: Minus 50 to plus 250 deg F (Minus 45 to plus 121 deg C).

2.11 INSULATED ACOUSTICAL MEDIUM PRESSURE FLEXIBLE DUCT

A. Where flexible duct is shown on drawings, provide Flexmaster Type 8M UL 181 Class I Air Duct or equal.

B. The duct shall be constructed of a CPE fabric supported by helical wound galvanized steel. The fabric shall be mechanically locked to the steel helix without the use of adhesives or chemicals.

C. The internal working pressure rating shall be at least 6" w.g. positive and 4" w.g. negative with a bursting pressure of at least 2 ½ time the working pressure

D. The duct shall be rated for a velocity of at lease 4000 feet per minute.

E. The duct must be suitable for continuous operation at a temperature range of -20° F to +250° F.

F. Acoustical performance, when tested by an independent laboratory in accordance with the Air Diffusion Council's Flexible Air Duct Test Code FD 72-R1, Section 3.0, Sound Properties, shall be as follows:

1. The insertion loss (dB) of a 10 foot length of straight duct when tested in accordance with ASTM E477, at a velocity of 2500 feet per minute, shall be at least:

Octave Band	2	3	4	5	6	7
Hz.	125	250	500	1000	2000	4000
6" diameter	7	31	40	38	40	27
8" diameter	13	29	36	35	38	22
12" diameter	21	28	29	33	26	12

2. The radiated noise reduction (dB) of a 10 foot length of straight duct when tested in accordance with ASTM E477, at a velocity of 2500 feet per minute, shall be at least:

Octave Band	2	3	4	5	6	7
Hz.	12	25	50	10	20	40

	5	0	0	00	00	00
6” diameter	5	8	7	8	11	15
8” diameter	10	7	7	8	10	13
12” diameter	9	6	6	5	9	13

3. The self generated sound power levels (LW) dB re 10^{-12} Watt of a 10 foot length of straight duct for an empty sheet metal duct when tested in accordance with ASTM E477, at a velocity of 1000 feet per minute, shall not exceed:

Octave Band	2	3	4	5	6	7
Hz.	125	250	500	1000	2000	4000
6” diameter	42	31	23	18	17	21
8” diameter	41	34	27	19	18	21
12” diameter	54	45	38	31	27	23

G. Factory insulate the flexible duct with fiberglass insulation. Provide insulation as required by ASHRAE 90.1.

H. Cover the insulation with a fire retardant metalized vapor barrier jacket reinforced with crosshatched scrim having a permeance of not greater than 0.05 perms when tested in accordance with ASTM #96, Procedure A.

2.12 DUCT ACCESSORY HARDWARE

A. Instrument Test Holes: Cast iron or cast aluminum to suit duct material, including screw cap and gasket. Size to allow insertion of pitot tube and other testing instruments and of length to suit duct insulation thickness.

B. Adhesives: High strength, quick setting, neoprene based, waterproof, and resistant to gasoline and grease.

2.13 LOUVERS

A. Manufacturers:
   1. Ruskin
   2. Greenheck

B. Description: Stationary-type louver with blades designed to prevent the penetration of wind driven rain.
   1. Extended sill to drain water to building exterior.
   2. Extruded aluminum alloy as follows:
      a. 5” deep frame with 0.081” wall thickness.
      b. Blades shall be double drainable and sight proof.
      c. Provide with aluminum screen.

PART 3 - EXECUTION

3.1 APPLICATION AND INSTALLATION

A. Install duct accessories according to applicable details in SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" for metal ducts and in NAIMA AH116, "Fibrous Glass Duct Construction Standards," for fibrous-glass ducts.

B. Provide duct accessories of materials suited to duct materials; use galvanized-steel accessories in galvanized-steel ducts, stainless-steel accessories in stainless-steel ducts, and aluminum accessories in aluminum ducts.

C. Install backdraft dampers on exhaust fans or exhaust ducts nearest to outside and where indicated.

D. Provide balancing dampers at points on supply, return, and exhaust systems where branches lead from larger ducts as required for air balancing. Install at a minimum of two duct widths from branch takeoff.

E. Provide test holes at fan inlets and outlets and elsewhere as indicated.

F. Install fire and smoke dampers, with fusible links, according to manufacturer's UL-approved written instructions.

G. Install duct silencers independent of ducts with flexible duct connectors, lagged with loaded vinyl sheet on inlets and outlets where indicated.

H. Install duct access doors to allow for inspecting, adjusting, and maintaining accessories and terminal units as follows:

1. On both sides of duct coils.
2. Downstream from volume dampers and equipment.
3. Adjacent to fire or smoke dampers, providing access to reset or reinstall fusible links.
4. To interior of ducts for cleaning; before and after each change in direction, at maximum 50-foot (15-m) spacing.
5. On sides of ducts where adequate clearance is available.

I. Install the following sizes for duct-mounting, rectangular access doors:

1. One-Hand or Inspection Access: 8 by 5 inches (200 by 125 mm).
2. Two-Hand Access: 12 by 6 inches (300 by 150 mm).
3. Head and Hand Access: 18 by 10 inches (460 by 250 mm).
4. Head and Shoulders Access: 21 by 14 inches (530 by 355 mm).
5. Body Access: 25 by 14 inches (635 by 355 mm).
6. Body Plus Ladder Access: 25 by 17 inches (635 by 430 mm).

J. Install the following sizes for duct-mounting, round access doors:

1. One-Hand or Inspection Access: 8 inches (200 mm) in diameter.
2. Two-Hand Access: 10 inches (250 mm) in diameter.
3. Head and Hand Access: 12 inches (300 mm) in diameter.
4. Head and Shoulders Access: 18 inches (460 mm) in diameter.
5. Body Access: 24 inches (600 mm) in diameter.

K. Label access doors according to Division 15 Section "Mechanical Identification."

L. Install flexible connectors immediately adjacent to equipment in ducts associated with fans and motorized equipment supported by vibration isolators.

M. For fans developing static pressures of 5-inch wg (1250 Pa) and higher, cover flexible connectors with loaded vinyl sheet held in place with metal straps.

N. Connect terminal units to supply ducts directly or with maximum 12-inch (300-mm) lengths of flexible duct. Do not use flexible ducts to change directions.

O. Connect diffusers or light troffer boots to low pressure ducts with maximum 60-inch (1500-mm) lengths of flexible duct clamped or strapped in place.

P. Connect flexible ducts to metal ducts with draw bands.

Q. Install duct test holes where indicated and required for testing and balancing purposes.

3.2 ADJUSTING

A. Adjust duct accessories for proper settings.

B. Adjust fire and smoke dampers for proper action.

C. Final positioning of manual-volume dampers is specified in Division 15 Section "Testing, Adjusting, and Balancing."

END OF SECTION 15820

SECTION 15838 - POWER VENTILATORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Utility set fans.
2. Centrifugal roof ventilators.
3. Ceiling-mounting ventilators.
4. In-line centrifugal fans.

1.3 PERFORMANCE REQUIREMENTS

A. Project Altitude: Base air ratings on sea-level conditions.

B. Operating Limits: Classify according to AMCA 99.

1.4 SUBMITTALS

A. Product Data: Include rated capacities, furnished specialties, and accessories for each type of product indicated and include the following:

1. Certified fan performance curves with system operating conditions indicated.
2. Certified fan sound-power ratings.
3. Motor ratings and electrical characteristics, plus motor and electrical accessories.
4. Material gages and finishes, including color charts.
5. Dampers, including housings, linkages, and operators.

B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

1. Wiring Diagrams: Power, signal, and control wiring. Differentiate between manufacturer-installed and field-installed wiring.
2. Design Calculations: Calculate requirements for selecting vibration isolators and for designing vibration isolation bases.
3. Vibration Isolation Base Details: Detail fabrication, including anchorages and attachments to structure and to supported equipment. Include auxiliary motor slides and rails, and base weights.

C. Coordination Drawings: Show roof penetration requirements and reflected ceiling plans drawn to scale and coordinating roof penetrations and units mounted above ceiling. Show the following:

1. Roof framing and support members relative to duct penetrations.
2. Ceiling suspension assembly members.
3. Size and location of initial access modules for acoustical tile.
4. Ceiling-mounted items including light fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings.

D. Maintenance Data: For power ventilators to include in maintenance manuals specified in Division 1.

1.5 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. AMCA Compliance: Products shall comply with performance requirements and shall be licensed to use the AMCA-Certified Ratings Seal.

C. NEMA Compliance: Motors and electrical accessories shall comply with NEMA standards.

D. UL Standard: Power ventilators shall comply with UL 705.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver fans as factory-assembled unit, to the extent allowable by shipping limitations, with protective crating and covering.

B. Disassemble and reassemble units, as required for moving to final location, according to manufacturer's written instructions.

C. Lift and support units with manufacturer's designated lifting or supporting points.

1.7 COORDINATION

A. Coordinate size and location of structural-steel support members.

B. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 3 Section "Cast-in-Place Concrete."

C. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Division 7 Section "Roof Accessories."

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Utility Set Fans:
    a. Cook, Loren Company.
    b. Greenheek.
    c. Penn Ventilation Companies, Inc.

2. Centrifugal Roof Ventilators:

    a. Acme Engineering & Mfg. Corp.
    b. Cook, Loren Company.
    c. Greenheck Fan Corp.
    d. Penn Ventilation Companies, Inc.

3. Ceiling-Mounting Ventilators:
    a. Broan Mfg. Co., Inc.
    b. Carnes Company HVAC.
    c. Cook, Loren Company.
    d. Greenheck Fan Corp.
    e. NuTone Inc.
    f. Penn Ventilation Companies, Inc.

4. In-Line Centrifugal Fans:

    a. Acme Engineering & Mfg. Corp.
    b. Cook, Loren Company.
    c. Greenheck Fan Corp.
    d. Penn Ventilation Companies, Inc.

2.2 UTILITY SET FANS

A. Description: Belt-driven centrifugal fans consisting of housing, wheel, fan shaft, bearings, motor and disconnect switch, drive assembly, and accessories.

B. Housing: Fabricated of galvanized with side sheets fastened with a deep lock seam or welded to scroll sheets.

1. Housing Discharge Arrangement: Adjustable to eight standard positions.

C. Fan Wheels: Single-width, single inlet; backward inclined aluminum wheel, with hub keyed to shaft.

1. Blade Materials: Aluminum.
2. Blade Type: Backward inclined.
3. Spark-Resistant Construction: AMCA 99.

D. Fan Shaft: Turned, ground, and polished steel; keyed to wheel hub.

E. Shaft Bearings: Prelubricated and sealed, self-aligning, pillow-block-type ball bearings with ABMA 9, L_{50} of 200,000 hours.

F. Belt Drives: Factory mounted, with final alignment and belt adjustment made after installation.

1. Service Factor Based on Fan Motor: 1.5.
2. Motor Pulleys: Adjustable pitch for use with motors through 5 hp; fixed pitch for use with motors larger than 5 hp. Select pulley so pitch adjustment is at the middle of adjustment range at fan design conditions.
3. Belts: Oil resistant, nonsparking, and nonstatic; matched sets for multiple belt drives.
4. Belt Guards: Fabricate of steel for motors mounted on outside of fan cabinet.

G. Accessories:

1. Backdraft Dampers: Gravity actuated with counterweight and interlocking aluminum blades and felt edges in steel frame installed on fan discharge.
2. Access Doors: Gasketed doors with latch-type handles.
3. Scroll Dampers: Single-blade damper installed at fan scroll top with adjustable linkage.
4. Inlet Screens: Removable wire mesh.
5. Drain Connections: NPS 3/4 (DN 20) threaded coupling drain connection installed at lowest point of housing.
6. Weather Hoods: Weather resistant with stamped vents over motor and drive compartment.

H. Coatings: Powder-baked enamel.

I. Basis of Design: Loren Cook Model “CPA”.

2.3 CENTRIFUGAL ROOF VENTILATORS

A. Description: Belt-driven or direct-driven centrifugal fans consisting of housing, wheel, fan shaft, bearings, motor and disconnect switch, drive assembly, curb base, and accessories.

B. Housing: Removable, spun-aluminum, dome top and outlet baffle; square, one-piece, aluminum base with venturi inlet cone.

1. Upblast Units: Provide spun-aluminum discharge baffle to direct discharge air upward, with rain drain.

C. Fan Wheels: Aluminum hub and wheel with backward-inclined blades.

D. Belt-Driven Drive Assembly: Resiliently mounted to housing, with the following features:

1. Fan Shaft: Turned, ground, and polished steel; keyed to wheel hub.
2. Shaft Bearings: Permanently lubricated, permanently sealed, self-aligning ball bearings.
3. Pulleys: Cast-iron, adjustable-pitch motor pulley.
4. Fan and motor isolated from exhaust airstream.

E. Accessories:

1. Variable-Speed Controller: Solid-state control to reduce speed from 100 percent to less than 50 percent for direct drive models.
2. Disconnect Switch: Nonfusible type, with thermal-overload protection mounted inside fan housing, factory wired through an internal aluminum conduit.
3. Bird Screens: Removable, 1/2-inch (13-mm) mesh, aluminum or brass wire.
4. Dampers: Counterbalanced, parallel-blade, backdraft dampers mounted in curb base; factory set to close when fan stops.

F. Roof Curbs: Galvanized steel; mitered and welded corners; 1-1/2-inch- (40-mm-) thick, rigid, fiberglass insulation adhered to inside walls; and 1-1/2-inch (40-mm) wood nailer. Size as required to suit roof opening and fan base.

1. Configuration: Built-in cant and mounting flange.
2. Overall Height: 13 1/2 inches.

3. Pitch Mounting: Manufacture curb for roof slope.

2.4 CEILING-MOUNTING VENTILATORS

A. Description: Centrifugal fans designed for installing in ceiling or wall or for concealed in-line applications.

B. Housing: Steel, lined with acoustical insulation.

C. Fan Wheel: Centrifugal wheels directly mounted on motor shaft. Fan shrouds, motor, and fan wheel shall be removable for service.

D. Grille: Plastic, louvered grille with flange on intake and thumbscrew attachment to fan housing.

E. Electrical Requirements: Junction box for electrical connection on housing and receptacle for motor plug-in.

F. Accessories:

1. Variable-Speed Controller: Solid-state control to reduce speed from 100 percent to less than 50 percent.
2. Manual Starter Switch: Single-pole rocker switch assembly with cover and pilot light.
3. Ceiling Radiation Damper: Fire-rated assembly with ceramic blanket, stainless-steel springs, and fusible link.
4. Isolation: Rubber-in-shear vibration isolators.

G. Basis of Design: Cook “Gemini”

2.5 IN-LINE CENTRIFUGAL FANS

A. Description: In-line, belt-driven centrifugal fans consisting of housing, wheel, outlet guide vanes, fan shaft, bearings, motor and disconnect switch, drive assembly, mounting brackets, and accessories.

B. Housing: Split, spun aluminum with aluminum straightening vanes, inlet and outlet flanges, and support bracket adaptable to floor, side wall, or ceiling mounting.

C. Direct-Driven Units: Motor encased in housing outside of airstream, factory wired to disconnect switch located on outside of fan housing.

D. Belt-Driven Units: Motor mounted on adjustable base, with adjustable sheaves, enclosure around belts within fan housing, and lubricating tubes from fan bearings extended to outside of fan housing.

E. Fan Wheels: Aluminum, airfoil blades welded to aluminum hub.

F. Accessories:

1. Volume-Control Damper: Manually operated with quadrant lock, located in fan outlet.
2. Companion Flanges: For inlet and outlet duct connections.
3. Fan Guards: 1/2- by 1-inch (13- by 25-mm) mesh of galvanized steel in removable frame. Provide guard for inlet or outlet for units not connected to ductwork.
4. Motor and Drive Cover (Belt Guard): Epoxy-coated steel.

G. Basis of Design: Cook Model “SQN”

2.6 MOTORS

A. Enclosure Type: Guarded dripproof.

2.7 SOURCE QUALITY CONTROL

A. Sound-Power Level Ratings: Comply with AMCA 301, "Methods for Calculating Fan Sound Ratings from Laboratory Test Data." Factory test fans according to AMCA 300, "Reverberant Room Method for Sound Testing of Fans." Label fans with the AMCA-Certified Ratings Seal.

B. Fan Performance Ratings: Establish flow rate, pressure, power, air density, speed of rotation, and efficiency by factory tests and ratings according to AMCA 210, "Laboratory Methods of Testing Fans for Rating."

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install power ventilators level and plumb.

B. Support units using spring isolators having a static deflection of 1 inch. Vibration- and seismic-control devices are specified in Division 15 Section "Mechanical Vibration Controls."

1. Secure vibration controls to concrete bases using anchor bolts cast in concrete base.

C. Install floor-mounting units on concrete bases. Concrete, reinforcement, and formwork requirements are specified in Division 3 Section "Cast-in-Place Concrete."

D. Secure roof-mounting fans to roof curbs with cadmium-plated hardware. Refer to Division 7 Section "Roof Accessories" for installation of roof curbs.

E. Ceiling Units: Suspend units from structure.

F. Support suspended units from structure using threaded steel rods and spring hangers. Vibration-control devices are specified in Division 15 Section "Mechanical Vibration Controls."

G. Install units with clearances for service and maintenance.

H. Label units according to requirements specified in Division 15 Section "Mechanical Identification."

3.2 CONNECTIONS

A. Duct installation and connection requirements are specified in other Division 15 Sections. Drawings indicate general arrangement of ducts and duct accessories. Make final duct connections with flexible connectors. Flexible connectors are specified in Division 15 Section "Duct Accessories."

B. Install ducts adjacent to power ventilators to allow service and maintenance.

C. Ground equipment.

D. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.3 FIELD QUALITY CONTROL

A. Equipment Startup Checks:

1. Verify that shipping, blocking, and bracing are removed.
2. Verify that unit is secure on mountings and supporting devices and that connections to ducts and electrical components are complete. Verify that proper thermal-overload protection is installed in motors, starters, and disconnect switches.

3. Verify that cleaning and adjusting are complete.
4. Disconnect fan drive from motor, verify proper motor rotation direction, and verify fan wheel free rotation and smooth bearing operation. Reconnect fan drive system, align and adjust belts, and install belt guards.
5. Verify lubrication for bearings and other moving parts.
6. Verify that manual and automatic volume control and fire and smoke dampers in connected ductwork systems are in fully open position.
7. Disable automatic temperature-control operators.

B. Starting Procedures:

1. Energize motor and adjust fan to indicated rpm.
2. Measure and record motor voltage and amperage.

C. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation. Remove malfunctioning units, replace with new units, and retest.

D. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

E. Shut unit down and reconnect automatic temperature-control operators.

F. Refer to Division 15 Section "Testing, Adjusting, and Balancing" for testing, adjusting, and balancing procedures.

G. Replace fan and motor pulleys as required to achieve design airflow.

H. Repair or replace malfunctioning units. Retest as specified above after repairs or replacements are made.

3.4 ADJUSTING

A. Adjust damper linkages for proper damper operation.

B. Adjust belt tension.

C. Lubricate bearings.

3.5 CLEANING

A. On completion of installation, internally clean fans according to manufacturer's written instructions. Remove foreign material and construction debris. Vacuum fan wheel and cabinet.

B. After completing system installation, including outlet fitting and devices, inspect exposed finish. Remove burrs, dirt, and construction debris and repair damaged finishes.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain power ventilators.

1. Train Owner's maintenance personnel on procedures and schedules for starting and stopping, troubleshooting, servicing, and maintaining equipment and schedules.
2. Review data in maintenance manuals. Refer to Division 1 Section "Closeout Procedures."
3. Review data in maintenance manuals. Refer to Division 1 Section "Operation and Maintenance Data."
4. Schedule training with Owner, through Architect, with at least seven days' advance notice.

END OF SECTION 15838

SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Ceiling and wall mounted diffusers, registers, and grilles.

B. Related Sections:

   1. Division 10 Section "Louvers and Vents" for fixed and adjustable louvers and wall vents, whether or not they are connected to ducts.
   2. Division 15 Section "Duct Accessories" for fire and smoke dampers and volume-control dampers not integral to diffusers, registers, and grilles.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated, include the following:

   1. Data Sheet: Indicate materials of construction, finish, and mounting details; and performance data including throw and drop, static-pressure drop, and noise ratings.
   2. Diffuser, Register, and Grille Schedule: Indicate drawing designation, room location, quantity, model number, size, and accessories furnished.

B. Samples for Initial Selection: For diffusers, registers, and grilles with factory-applied color finishes.

C. Samples for Verification: For diffusers, registers, and grilles, in manufacturer's standard sizes to verify color selected.

D. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from Installers of the items involved:

1. Ceiling suspension assembly members.
2. Method of attaching hangers to building structure.
3. Size and location of initial access modules for acoustical tile.
4. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings.
5. Duct access panels.

E. Source quality-control reports.

PART 2 - PRODUCTS

2.1 Manufacturers:

A.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
   a. METALAIRE, Inc.
   b. Price Industries.
   c. Titus.

2. Refer to drawings for air device accessories.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas where diffusers, registers, and grilles are to be installed for compliance with requirements for installation tolerances and other conditions affecting performance of equipment.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install diffusers, registers, and grilles level and plumb.

B. Ceiling-Mounted Outlets and Inlets: Drawings indicate general arrangement of ducts, fittings, and accessories. Air outlet and inlet locations have been indicated to achieve design requirements for air volume, noise criteria, airflow pattern, throw, and pressure drop. Make final locations where indicated, as

much as practical. For units installed in lay-in ceiling panels, locate units in the center of panel. Where architectural features or other items conflict with installation, notify Architect for a determination of final location.

C. Install diffusers, registers, and grilles with airtight connections to ducts and to allow service and maintenance of dampers, air extractors, and fire dampers.

3.3 ADJUSTING

A. After installation, adjust diffusers, registers, and grilles to air patterns indicated, or as directed, before starting air balancing.

END OF SECTION 15855

SECTION 15950 - TESTING, ADJUSTING, AND BALANCING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Contractual Relationship
   1. The scope of the TAB work as defined in this Section is indicated in order that the Contractor will be advised of the coordination, adjustment, and system modification which will be required under the project work in order to complete the requirements for final TAB. The TAB firm will not have a contractual relationship with the Mechanical Contractor, but will be responsible to the General Contractor for the satisfactory execution of the TAB work. **The General Contractor in his original bid shall include the costs required to cover all work which may be required in the TAB phases as defined herein and as may be necessary for the completion of the TAB work as defined by the TAB firm**.

1.2 SUMMARY

A. Section Includes:

   1. Balancing Air Systems:

      a. Constant-volume air systems.
      b. Variable-air-volume systems.

   2. Balancing Hydronic Piping Systems:
      a. Primary-secondary hydronic systems.

1.3 DEFINITIONS

A. AABC: Associated Air Balance Council.

B. NEBB: National Environmental Balancing Bureau.

C. TAB: Testing, adjusting, and balancing.

D. TABB: Testing, Adjusting, and Balancing Bureau.

E. TAB Specialist: An entity engaged to perform TAB Work.

1.4 SUBMITTALS

A. Qualification Data: Within 30 days of Contractor's Notice to Proceed, submit documentation that the TAB contractor and this Project's TAB team members meet the qualifications specified in "Quality Assurance" Article.

B. Contract Documents Examination Report: Within 45 days of Contractor's Notice to Proceed, submit the Contract Documents review report as specified in Part 3.

C. Strategies and Procedures Plan: Within 90 days of Contractor's Notice to Proceed, submit TAB strategies and step-by-step procedures as specified in "Preparation" Article.

D. Certified TAB reports.

E. Sample report forms.

F. Instrument calibration reports, to include the following:

1. Instrument type and make.
2. Serial number.
3. Application.
4. Dates of use.
5. Dates of calibration.

1.5 QUALITY ASSURANCE

A. TAB Contractor Qualifications: Engage a TAB entity certified by AABC or NEBB.

B. TAB Conference: Meet with Architect & Owner’s representative on approval of the TAB strategies and procedures plan to develop a mutual understanding of the details. Require the participation of the TAB field supervisor and technicians. Provide seven days' advance notice of scheduled meeting time and location.

1. Agenda Items:

a. The Contract Documents examination report.
b. The TAB plan.

c. Coordination and cooperation of trades and subcontractors.
d. Coordination of documentation and communication flow.

C. Certify TAB field data reports and perform the following:

1. Review field data reports to validate accuracy of data and to prepare certified TAB reports.
2. Certify that the TAB team complied with the approved TAB plan and the procedures specified and referenced in this Specification.

D. TAB Report Forms: Use standard TAB contractor's forms approved by Engineer.

E. Instrumentation Type, Quantity, Accuracy, and Calibration: As described in ASHRAE 111, Section 5, "Instrumentation."

1.6 PROJECT CONDITIONS

A. Partial Owner Occupancy: Owner may occupy completed areas of building before Substantial Completion. Cooperate with Owner during TAB operations to minimize conflicts with Owner's operations.

1.7 COORDINATION

A. Notice: Provide seven days' advance notice for each test. Include scheduled test dates and times.

B. Perform TAB after leakage and pressure tests on air and water distribution systems have been satisfactorily completed.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine the Contract Documents to become familiar with Project requirements and to discover conditions in systems' designs that may preclude proper TAB of systems and equipment.

B. Examine systems for installed balancing devices, such as test ports, gage cocks, thermometer wells, flow-control devices, balancing valves and fittings,

and manual volume dampers. Verify that locations of these balancing devices are accessible.

C. Examine the approved submittals for HVAC systems and equipment.

D. Examine design data including HVAC system descriptions, statements of design assumptions for environmental conditions and systems' output, and statements of philosophies and assumptions about HVAC system and equipment controls.

E. Examine ceiling plenums and underfloor air plenums used for supply, return, or relief air to verify that they meet the leakage class of connected ducts as specified in Division 15 Section "Metal Ducts" and are properly separated from adjacent areas. Verify that penetrations in plenum walls are sealed and fire-stopped if required.

F. Examine equipment performance data including fan and pump curves.

1. Relate performance data to Project conditions and requirements, including system effects that can create undesired or unpredicted conditions that cause reduced capacities in all or part of a system.
2. Calculate system-effect factors to reduce performance ratings of HVAC equipment when installed under conditions different from the conditions used to rate equipment performance. To calculate system effects for air systems, use tables and charts found in AMCA 201, "Fans and Systems," or in SMACNA's "HVAC Systems - Duct Design." Compare results with the design data and installed conditions.

G. Examine system and equipment installations and verify that field quality-control testing, cleaning, and adjusting specified in individual Sections have been performed.

H. Examine test reports specified in individual system and equipment Sections.

I. Examine HVAC equipment and filters and verify that bearings are greased, belts are aligned and tight, and equipment with functioning controls is ready for operation.

J. Examine terminal units, such as variable-air-volume boxes, and verify that they are accessible and their controls are connected and functioning.

K. Examine strainers. Verify that startup screens are replaced by permanent screens with indicated perforations.

L. Examine three-way valves for proper installation for their intended function of diverting or mixing fluid flows.

M. Examine heat-transfer coils for correct piping connections and for clean and straight fins.

N. Examine system pumps to ensure absence of entrained air in the suction piping.

O. Examine operating safety interlocks and controls on HVAC equipment.

P. Report deficiencies discovered before and during performance of TAB procedures. Observe and record system reactions to changes in conditions. Record default set points if different from indicated values.

3.2 PREPARATION

A. Prepare a TAB plan that includes strategies and step-by-step procedures.

B. Complete system-readiness checks and prepare reports. Verify the following:

1. Permanent electrical-power wiring is complete.
2. Hydronic systems are filled, clean, and free of air.
3. Automatic temperature-control systems are operational.
4. Equipment and duct access doors are securely closed.
5. Balance, smoke, and fire dampers are open.
6. Isolating and balancing valves are open and control valves are operational.
7. Ceilings are installed in critical areas where air-pattern adjustments are required and access to balancing devices is provided.
8. Windows and doors can be closed so indicated conditions for system operations can be met.

3.3 GENERAL PROCEDURES FOR TESTING AND BALANCING

A. Perform testing and balancing procedures on each system according to the procedures contained in AABC's "National Standards for Total System Balance" or NEBB's "Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems" and in this Section.

1. Comply with requirements in ASHRAE 62.1-2004, Section 7.2.2, "Air Balancing."

B. Cut insulation, ducts, pipes, and equipment cabinets for installation of test probes to the minimum extent necessary for TAB procedures.

1. After testing and balancing, patch probe holes in ducts with same material and thickness as used to construct ducts.

2. After testing and balancing, install test ports and duct access doors that comply with requirements in Division 15 Section "Duct Accessories."
3. Install and join new insulation that matches removed materials. Restore insulation, coverings, vapor barrier, and finish according to Division 15 Section "HVAC Insulation."

C. Mark equipment and balancing devices, including damper-control positions, valve position indicators, fan-speed-control levers, and similar controls and devices, with paint or other suitable, permanent identification material to show final settings.

D. Take and report testing and balancing measurements in inch-pound (IP) units.

3.4 GENERAL PROCEDURES FOR BALANCING AIR SYSTEMS

A. Prepare test reports for both fans and outlets. Obtain manufacturer's outlet factors and recommended testing procedures. Crosscheck the summation of required outlet volumes with required fan volumes.

B. Prepare schematic diagrams of systems' "as-built" duct layouts.

C. For variable-air-volume systems, develop a plan to simulate diversity.

D. Determine the best locations in main and branch ducts for accurate duct-airflow measurements.

E. Check airflow patterns from the outdoor-air louvers and dampers and the return- and exhaust-air dampers through the supply-fan discharge and mixing dampers.

F. Locate start-stop and disconnect switches, electrical interlocks, and motor starters.

G. Verify that motor starters are equipped with properly sized thermal protection.

H. Check dampers for proper position to achieve desired airflow path.

I. Check for airflow blockages.

J. Check condensate drains for proper connections and functioning.

K. Check for proper sealing of air-handling-unit components.

L. Verify that air duct system is sealed as specified in Division 15 Section "Metal Ducts."

3.5 PROCEDURES FOR CONSTANT-VOLUME AIR SYSTEMS

A. Adjust fans to deliver total indicated airflows within the maximum allowable fan speed listed by fan manufacturer.

1. Measure total airflow.

    a. Where sufficient space in ducts is unavailable for Pitot-tube traverse measurements, measure airflow at terminal outlets and inlets and calculate the total airflow.

2. Measure fan static pressures as follows to determine actual static pressure:

    a. Measure outlet static pressure as far downstream from the fan as practical and upstream from restrictions in ducts such as elbows and transitions.
    b. Measure static pressure directly at the fan outlet or through the flexible connection.
    c. Measure inlet static pressure of single-inlet fans in the inlet duct as near the fan as possible, upstream from the flexible connection, and downstream from duct restrictions.
    d. Measure inlet static pressure of double-inlet fans through the wall of the plenum that houses the fan.

3. Measure static pressure across each component that makes up an air-handling unit, rooftop unit, and other air-handling and -treating equipment.

    a. Report the cleanliness status of filters and the time static pressures are measured.

4. Measure static pressures entering and leaving other devices, such as sound traps, heat-recovery equipment, and air washers, under final balanced conditions.
5. Review Record Documents to determine variations in design static pressures versus actual static pressures. Calculate actual system-effect factors. Recommend adjustments to accommodate actual conditions.
6. Obtain approval from Architect for adjustment of fan speed higher or lower than indicated speed. Comply with requirements in Division 15 Sections for air-handling units for adjustment of fans, belts, and pulley sizes to achieve indicated air-handling-unit performance.
7. Do not make fan-speed adjustments that result in motor overload. Consult equipment manufacturers about fan-speed safety factors. Modulate dampers and measure fan-motor amperage to ensure that no overload will occur. Measure amperage in full-cooling, full-heating, economizer, and

any other operating mode to determine the maximum required brake horsepower.

B. Adjust volume dampers for main duct, submain ducts, and major branch ducts to indicated airflows within specified tolerances.

1. Measure airflow of submain and branch ducts.

a. Where sufficient space in submain and branch ducts is unavailable for Pitot-tube traverse measurements, measure airflow at terminal outlets and inlets and calculate the total airflow for that zone.

2. Measure static pressure at a point downstream from the balancing damper, and adjust volume dampers until the proper static pressure is achieved.
3. Remeasure each submain and branch duct after all have been adjusted. Continue to adjust submain and branch ducts to indicated airflows within specified tolerances.

C. Measure air outlets and inlets without making adjustments.

1. Measure terminal outlets using a direct-reading hood or outlet manufacturer's written instructions and calculating factors.

D. Adjust air outlets and inlets for each space to indicated airflows within specified tolerances of indicated values. Make adjustments using branch volume dampers rather than extractors and the dampers at air terminals.

1. Adjust each outlet in same room or space to within specified tolerances of indicated quantities without generating noise levels above the limitations prescribed by the Contract Documents.
2. Adjust patterns of adjustable outlets for proper distribution without drafts.

3.6 PROCEDURES FOR MOTORS

A. Motors, 1/2 HP and Larger: Test at final balanced conditions and record the following data:

1. Manufacturer's name, model number, and serial number.
2. Motor horsepower rating.
3. Motor rpm.
4. Efficiency rating.
5. Nameplate and measured voltage, each phase.
6. Nameplate and measured amperage, each phase.
7. Starter thermal-protection-element rating.

B. Motors Driven by Variable-Frequency Controllers: Test for proper operation at speeds varying from minimum to maximum. Test the manual bypass of the controller to prove proper operation. Record observations including name of controller manufacturer, model number, serial number, and nameplate data.

3.7 PROCEDURES FOR CONDENSING UNITS

A. Verify proper rotation of fans.

B. Measure entering- and leaving-air temperatures.

C. Record compressor data.

3.8 PROCEDURES FOR HEAT-TRANSFER COILS

A. Measure, adjust, and record the following data for each electric heating coil:

1. Nameplate data.
2. Airflow.
3. Entering- and leaving-air temperature at full load.
4. Voltage and amperage input of each phase at full load and at each incremental stage.
5. Calculated kilowatt at full load.
6. Fuse or circuit-breaker rating for overload protection.

B. Measure, adjust, and record the following data for each refrigerant coil:

1. Dry-bulb temperature of entering and leaving air.
2. Wet-bulb temperature of entering and leaving air.
3. Airflow.
4. Air pressure drop.
5. Refrigerant suction pressure and temperature.

3.9 TOLERANCES

A. Set HVAC system's air flow rates and water flow rates within the following tolerances:

1. Supply, Return, and Exhaust Fans and Equipment with Fans: Plus or minus 10 percent.
2. Air Outlets and Inlets: Plus or minus 10 percent.
3. Cooling-Water Flow Rate: Plus or minus 10 percent.

3.10 REPORTING

A. Initial Construction-Phase Report: Based on examination of the Contract Documents as specified in "Examination" Article, prepare a report on the adequacy of design for systems' balancing devices. Recommend changes and additions to systems' balancing devices to facilitate proper performance measuring and balancing. Recommend changes and additions to HVAC systems and general construction to allow access for performance measuring and balancing devices.

B. Status Reports: Prepare progress reports to describe completed procedures, procedures in progress, and scheduled procedures. Include a list of deficiencies and problems found in systems being tested and balanced. Prepare a separate report for each system and each building floor for systems serving multiple floors.

3.11 FINAL REPORT

A. General: Prepare a certified written report; tabulate and divide the report into separate sections for tested systems and balanced systems.

1. Include a certification sheet at the front of the report's binder, signed and sealed by the certified testing and balancing engineer.
2. Include a list of instruments used for procedures, along with proof of calibration.

B. Final Report Contents: In addition to certified field-report data, include the following:

1. Pump curves.
2. Fan curves.
3. Manufacturers' test data.
4. Field test reports prepared by system and equipment installers.
5. Other information relative to equipment performance; do not include Shop Drawings and product data.

C. General Report Data: In addition to form titles and entries, include the following data:

1. Title page.
2. Name and address of the TAB contractor.
3. Project name.
4. Project location.
5. Architect's name and address.
6. Engineer's name and address.

7. Contractor's name and address.
8. Report date.
9. Signature of TAB supervisor who certifies the report.
10. Table of Contents with the total number of pages defined for each section of the report. Number each page in the report.
11. Summary of contents including the following:

    a. Indicated versus final performance.
    b. Notable characteristics of systems.
    c. Description of system operation sequence if it varies from the Contract Documents.

12. Nomenclature sheets for each item of equipment.
13. Data for terminal units, including manufacturer's name, type, size, and fittings.
14. Notes to explain why certain final data in the body of reports vary from indicated values.
15. Test conditions for fans and pump performance forms including the following:

    a. Settings for outdoor-, return-, and exhaust-air dampers.
    b. Conditions of filters.
    c. Cooling coil, wet- and dry-bulb conditions.
    d. Face and bypass damper settings at coils.
    e. Fan drive settings including settings and percentage of maximum pitch diameter.
    f. Inlet vane settings for variable-air-volume systems.
    g. Settings for supply-air, static-pressure controller.
    h. Other system operating conditions that affect performance.

D. System Diagrams: Include schematic layouts of air and hydronic distribution systems. Present each system with single-line diagram and include the following:

1. Quantities of outdoor, supply, return, and exhaust airflows.
2. Water and steam flow rates.
3. Duct, outlet, and inlet sizes.
4. Pipe and valve sizes and locations.
5. Terminal units.
6. Balancing stations.
7. Position of balancing devices.

E. Air-Handling-Unit Test Reports: For air-handling units with coils, include the following:

1. Unit Data:

a. Unit identification.
b. Location.
c. Make and type.
d. Model number and unit size.
e. Manufacturer's serial number.
f. Unit arrangement and class.
g. Discharge arrangement.
h. Sheave make, size in inches (mm), and bore.
i. Center-to-center dimensions of sheave, and amount of adjustments in inches (mm).
j. Number, make, and size of belts.
k. Number, type, and size of filters.

2. Motor Data:

a. Motor make, and frame type and size.
b. Horsepower and rpm.
c. Volts, phase, and hertz.
d. Full-load amperage and service factor.
e. Sheave make, size in inches (mm), and bore.
f. Center-to-center dimensions of sheave, and amount of adjustments in inches (mm).

3. Test Data (Indicated and Actual Values):

a. Total air flow rate in cfm (L/s).
b. Total system static pressure in inches wg (Pa).
c. Fan rpm.
d. Discharge static pressure in inches wg (Pa).
e. Filter static-pressure differential in inches wg (Pa).
f. Preheat-coil static-pressure differential in inches wg (Pa).
g. Cooling-coil static-pressure differential in inches wg (Pa).
h. Heating-coil static-pressure differential in inches wg (Pa).
i. Outdoor airflow in cfm (L/s).
j. Return airflow in cfm (L/s).
k. Outdoor-air damper position.
l. Return-air damper position.
m. Vortex damper position.

F. Apparatus-Coil Test Reports:

1. Coil Data:

a. System identification.
b. Location.
c. Coil type.

d. Number of rows.
e. Fin spacing in fins per inch (mm) o.c.
f. Make and model number.
g. Face area in sq. ft. (sq. m).
h. Tube size in NPS (DN).
i. Tube and fin materials.
j. Circuiting arrangement.

2. Test Data (Indicated and Actual Values):

a. Air flow rate in cfm (L/s).
b. Average face velocity in fpm (m/s).
c. Air pressure drop in inches wg (Pa).
d. Outdoor-air, wet- and dry-bulb temperatures in deg F (deg C).
e. Return-air, wet- and dry-bulb temperatures in deg F (deg C).
f. Entering-air, wet- and dry-bulb temperatures in deg F (deg C).
g. Leaving-air, wet- and dry-bulb temperatures in deg F (deg C).
h. Water flow rate in gpm (L/s).
i. Water pressure differential in feet of head or psig (kPa).
j. Entering-water temperature in deg F (deg C).
k. Leaving-water temperature in deg F (deg C).
l. Refrigerant expansion valve and refrigerant types.
m. Refrigerant suction pressure in psig (kPa).
n. Refrigerant suction temperature in deg F (deg C).
o. Inlet steam pressure in psig (kPa).

G. Fan Test Reports: For supply, return, and exhaust fans, include the following:

1. Fan Data:

a. System identification.
b. Location.
c. Make and type.
d. Model number and size.
e. Manufacturer's serial number.
f. Arrangement and class.
g. Sheave make, size in inches (mm), and bore.
h. Center-to-center dimensions of sheave, and amount of adjustments in inches (mm).

2. Motor Data:

a. Motor make, and frame type and size.
b. Horsepower and rpm.
c. Volts, phase, and hertz.
d. Full-load amperage and service factor.

e. Sheave make, size in inches (mm), and bore.
f. Center-to-center dimensions of sheave, and amount of adjustments in inches (mm).
g. Number, make, and size of belts.

3. Test Data (Indicated and Actual Values):

a. Total airflow rate in cfm (L/s).
b. Total system static pressure in inches wg (Pa).
c. Fan rpm.
d. Discharge static pressure in inches wg (Pa).
e. Suction static pressure in inches wg (Pa).

H. Round, Flat-Oval, and Rectangular Duct Traverse Reports: Include a diagram with a grid representing the duct cross-section and record the following:

1. Report Data:

a. System and air-handling-unit number.
b. Location and zone.
c. Traverse air temperature in deg F (deg C).
d. Duct static pressure in inches wg (Pa).
e. Duct size in inches (mm).
f. Duct area in sq. ft. (sq. m).
g. Indicated air flow rate in cfm (L/s).
h. Indicated velocity in fpm (m/s).
i. Actual air flow rate in cfm (L/s).
j. Actual average velocity in fpm (m/s).
k. Barometric pressure in psig (Pa).

I. Air-Terminal-Device Reports:

1. Unit Data:

a. System and air-handling unit identification.
b. Location and zone.
c. Apparatus used for test.
d. Area served.
e. Make.
f. Number from system diagram.
g. Type and model number.
h. Size.
i. Effective area in sq. ft. (sq. m).

2. Test Data (Indicated and Actual Values):

a. Air flow rate in cfm (L/s).
b. Air velocity in fpm (m/s).
c. Preliminary air flow rate as needed in cfm (L/s).
d. Preliminary velocity as needed in fpm (m/s).
e. Final air flow rate in cfm (L/s).
f. Final velocity in fpm (m/s).
g. Space temperature in deg F (deg C).

J. Pump Test Reports: Calculate impeller size by plotting the shutoff head on pump curves and include the following:

1. Unit Data:

a. Unit identification.
b. Location.
c. Service.
d. Make and size.
e. Model number and serial number.
f. Water flow rate in gpm (L/s).
g. Water pressure differential in feet of head or psig (kPa).
h. Required net positive suction head in feet of head or psig (kPa).
i. Pump rpm.
j. Impeller diameter in inches (mm).
k. Motor make and frame size.
l. Motor horsepower and rpm.
m. Voltage at each connection.
n. Amperage for each phase.
o. Full-load amperage and service factor.
p. Seal type.

2. Test Data (Indicated and Actual Values):

a. Static head in feet of head or psig (kPa).
b. Pump shutoff pressure in feet of head or psig (kPa).
c. Actual impeller size in inches (mm).
d. Full-open flow rate in gpm (L/s).
e. Full-open pressure in feet of head or psig (kPa).
f. Final discharge pressure in feet of head or psig (kPa).
g. Final suction pressure in feet of head or psig (kPa).
h. Final total pressure in feet of head or psig (kPa).
i. Final water flow rate in gpm (L/s).
j. Voltage at each connection.
k. Amperage for each phase.

K. Instrument Calibration Reports:

1. Report Data:

    a. Instrument type and make.
    b. Serial number.
    c. Application.
    d. Dates of use.
    e. Dates of calibration.

3.12 INSPECTIONS

A. Initial Inspection:

1. After testing and balancing are complete, operate each system and randomly check measurements to verify that the system is operating according to the final test and balance readings documented in the final report.
2. Check the following for each system:

    a. Measure airflow of at least 10 percent of air outlets.
    b. Measure room temperature at each thermostat/temperature sensor. Compare the reading to the set point.
    c. Verify that balancing devices are marked with final balance position.
    d. Note deviations from the Contract Documents in the final report.

B. Final Inspection:

1. After initial inspection is complete and documentation by random checks verifies that testing and balancing are complete and accurately documented in the final report.
2. The TAB contractor's test and balance engineer shall conduct the inspection in the presence of Construction Manager.
3. Construction Manager shall randomly select measurements, documented in the final report, to be rechecked. Rechecking shall be limited to either 10 percent of the total measurements recorded or the extent of measurements that can be accomplished in a normal 8-hour business day.
4. If rechecks yield measurements that differ from the measurements documented in the final report by more than the tolerances allowed, the measurements shall be noted as "FAILED."
5. If the number of "FAILED" measurements is greater than 10 percent of the total measurements checked during the final inspection, the testing and balancing shall be considered incomplete and shall be rejected.

C. TAB Work will be considered defective if it does not pass final inspections. If TAB Work fails, proceed as follows:

1. Recheck all measurements and make adjustments. Revise the final report and balancing device settings to include all changes; resubmit the final report and request a second final inspection.
2. If the second final inspection also fails, Owner may contract the services of another TAB contractor to complete TAB Work according to the Contract Documents and deduct the cost of the services from the original TAB contractor's final payment.

D. Prepare test and inspection reports.

3.13 ADDITIONAL TESTS

A. Within 90 days of completing TAB, perform additional TAB to verify that balanced conditions are being maintained throughout and to correct unusual conditions.

B. Seasonal Periods: If initial TAB procedures were not performed during near-peak summer and winter conditions, perform additional TAB during near-peak summer and winter conditions.

3.20 DUCT LEAKAGE TESTING

A. Contractor shall prepare ductwork for leakage testing by test and balance firm. Contractor shall remake any joints and/or duct runs which do not comply with maximum allowable leakage rates for retest by test and balance firm. Mechanical Contractor shall be responsible for any compensation due to the test and balance firm for additional testing required as a result of initial system failure.

B. Perform the following field tests and inspections according to SMACNA's "HVAC Air Duct Leakage Test Manual" and prepare test reports:
1. Test ductwork assemblies in excess of 1-1/2 inch static pressure class installed by Mechanical Contractor.
2. Conduct tests at static pressures equal to maximum design pressure of system or section being tested. If pressure classes are not indicated, test entire system at maximum system design pressure. Do not pressurize systems above maximum design operating pressure. Give seven days' advance notice for testing.
3. Maximum Allowable Leakage: Comply with requirements for Leakage Class 3 for round and flat-oval ducts, Leakage Class 12 for rectangular ducts in pressure classes lower than and equal to 2-inch wg (500 Pa) (both positive and negative pressures), and Leakage Class 6 for pressure classes from 2- to 10-inch wg (500 to 2500 Pa).

END OF SECTION 15950

SECTION 16051 - COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Electrical equipment coordination and installation.
2. Sleeves for raceways and cables.
3. Sleeve seals.
4. Grout.
5. Common electrical installation requirements.

1.3 DEFINITIONS

A. EPDM: Ethylene-propylene-diene terpolymer rubber.

B. NBR: Acrylonitrile-butadiene rubber.

1.4 SUBMITTALS

A. Product Data: For sleeve seals.

1.5 COORDINATION

A. Coordinate arrangement, mounting, and support of electrical equipment:

1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
3. To allow right of way for piping and conduit installed at required slope.
4. So connecting raceways, cables, wireways, cable trays, and busways will be clear of obstructions and of the working and access space of other equipment.

B. Coordinate installation of required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

C. Coordinate location of access panels and doors for electrical items that are behind finished surfaces or otherwise concealed. Access doors and panels are specified in Division 8 Section "Access Doors and Frames."

D. Coordinate sleeve selection and application with selection and application of firestopping specified in Division 7 Section "Through-Penetration Firestop Systems."

PART 2 - PRODUCTS

2.1 SLEEVES FOR RACEWAYS AND CABLES

A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.

B. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.

C. Sleeves for Rectangular Openings: Galvanized sheet steel.

1. Minimum Metal Thickness:

a. For sleeve cross-section rectangle perimeter less than 50 inches (1270 mm) and no side more than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).
b. For sleeve cross-section rectangle perimeter equal to, or more than, 50 inches (1270 mm) and 1 or more sides equal to, or more than, 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

2.2 SLEEVE SEALS

A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Advance Products & Systems, Inc.
b. Calpico, Inc.
c. Metraflex Co.
d. Pipeline Seal and Insulator, Inc.

2. Sealing Elements: EPDM interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
3. Pressure Plates: Carbon steel. Include two for each sealing element.
4. Connecting Bolts and Nuts: Carbon steel with corrosion-resistant coating of length required to secure pressure plates to sealing elements. Include one for each sealing element.

2.3 GROUT

A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

A. Comply with NECA 1.

B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.

C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.

D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.

E. Right of Way: Give to piping systems installed at a required slope.

3.2 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Electrical penetrations occur when raceways, cables, wireways, cable trays, or busways penetrate concrete slabs, concrete or masonry walls, or fire-rated floor and wall assemblies.

B. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.

C. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.

D. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.

E. Cut sleeves to length for mounting flush with both surfaces of walls.

F. Extend sleeves installed in floors 2 inches (50 mm) above finished floor level.

G. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and raceway or cable, unless indicated otherwise.

H. Seal space outside of sleeves with grout for penetrations of concrete and masonry

1. Promptly pack grout solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect grout while curing.

I. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Division 7 Section "Joint Sealants."

J. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at raceway and cable penetrations. Install sleeves and seal raceway and cable penetration sleeves with firestop materials. Comply with requirements in Division 7 Section "Through-Penetration Firestop Systems."

K. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.

L. Aboveground, Exterior-Wall Penetrations: Seal penetrations using steel pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.

M. Underground, Exterior-Wall Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch (25-mm) annular clear space between raceway or cable and sleeve for installing mechanical sleeve seals.

3.3 SLEEVE-SEAL INSTALLATION

A. Install to seal exterior wall penetrations.

B. Use type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.4 FIRESTOPPING

A. Apply firestopping to penetrations of fire-rated floor and wall assemblies for electrical installations to restore original fire-resistance rating of assembly. Firestopping materials and installation requirements are specified in Division 7 Section "Through-Penetration Firestop Systems."

END OF SECTION 16051

SECTION 16060 - GROUNDING AND BONDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes methods and materials for grounding systems and equipment.

1. Overhead-lines grounding.
2. Underground distribution grounding.
3. Common ground bonding with lightning protection system.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Other Informational Submittals: Plans showing dimensioned as-built locations of grounding features specified in Part 3 "Field Quality Control" Article, including the following:

1. Test wells.
2. Ground rods.
3. Ground rings.
4. Grounding arrangements and connections for separately derived systems.
5. Grounding for sensitive electronic equipment.

C. Qualification Data: For testing agency and testing agency's field supervisor.

D. Field quality-control test reports.

E. Operation and Maintenance Data: For grounding to include the following in emergency, operation, and maintenance manuals:

1.4 QUALITY ASSURANCE

A. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.

1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association to supervise on-site testing specified in Part 3.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

C. Comply with UL 467 for grounding and bonding materials and equipment.

PART 2 - PRODUCTS

2.1 CONDUCTORS

A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

B. Bare Copper Conductors:

1. Solid Conductors: ASTM B 3.
2. Stranded Conductors: ASTM B 8.
3. Tinned Conductors: ASTM B 33.
4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.
5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
6. Bonding Jumper: Copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.

C. Bare Grounding Conductor and Conductor Protector for Wood Poles:

1. No. 4 AWG minimum, soft-drawn copper.
2. Conductor Protector: Half-round PVC or wood molding. If wood, use pressure-treated fir or cypress or cedar.

D. Grounding Bus: Rectangular bars of annealed copper, 1/4 by 2 inches (6 by 50 mm) in cross section, unless otherwise indicated; with insulators.

2.2 CONNECTORS

A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.

B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.

1. Pipe Connectors: Clamp type, sized for pipe.

C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

2.3 GROUNDING ELECTRODES

A. Ground Rods: Copper-clad steel; 3/4 inch by10 feet (19 mm by 3 m) in diameter.

PART 3 - EXECUTION

3.1 APPLICATIONS

A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger, unless otherwise indicated.

B. Underground Grounding Conductors: Install barecopper conductor, No. 2/0 AWG minimum.

1. Bury at least 24 inches (600 mm) below grade.

C. Isolated Grounding Conductors: Green-colored insulation with continuous yellow stripe. On feeders with isolated ground, identify grounding conductor where visible to normal inspection, with alternating bands of green and yellow tape, with at least three bands of green and two bands of yellow.

D. Grounding Bus: Install in electrical and telephone equipment rooms, in rooms housing service equipment, and elsewhere as indicated.

1. Install bus on insulated spacers 1 inch (25 mm), minimum, from wall 6 inches (150 mm) above finished floor, unless otherwise indicated.
2. Where indicated on both sides of doorways, route bus up to top of door frame, across top of doorway, down to specified height above floor, and connect to horizontal bus.

E. Conductor Terminations and Connections:

1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
2. Underground Connections: Welded connectors, except at test wells and as otherwise indicated.
3. Connections to Ground Rods at Test Wells: Bolted connectors.
4. Connections to Structural Steel: Welded connectors.

3.2 GROUNDING OVERHEAD LINES

A. Comply with IEEE C2 grounding requirements.

B. Install 2 parallel ground rods if resistance to ground by a single, ground-rod electrode exceeds 25 ohms.

C. Drive ground rods until tops are 12 inches (300 mm) below finished grade in undisturbed earth.

D. Ground-Rod Connections: Install bolted connectors for underground connections and connections to rods.

E. Lightning Arrester Grounding Conductors: Separate from other grounding conductors.

F. Secondary Neutral and Transformer Enclosure: Interconnect and connect to grounding conductor.

G. Protect grounding conductors running on surface of wood poles with molding extended from grade level up to and through communication service and transformer spaces.

3.3 GROUNDING UNDERGROUND DISTRIBUTION SYSTEM COMPONENTS

A. Comply with IEEE C2 grounding requirements.

B. Grounding Manholes and Handholes: Install a driven ground rod through manhole or handhole floor, close to wall, and set rod depth so 4 inches (100 mm) will extend above finished floor. If necessary, install ground rod before manhole is placed and provide No. 1/0 AWG bare, tinned-copper conductor from ground rod into manhole through a waterproof sleeve in manhole wall. Protect ground rods passing through concrete floor with a double wrapping of pressure-sensitive insulating tape or heat-shrunk insulating sleeve from 2 inches (50 mm) above to 6 inches (150 mm) below concrete. Seal floor opening with waterproof, nonshrink grout.

C. Grounding Connections to Manhole Components: Bond exposed-metal parts such as inserts, cable racks, pulling irons, ladders, and cable shields within each manhole or handhole, to ground rod or grounding conductor. Make connections with No. 4 AWG minimum, stranded, hard-drawn copper bonding conductor. Train conductors level or plumb around corners and fasten to manhole walls. Connect to cable armor and cable shields as recommended by manufacturer of splicing and termination kits.

D. Pad-Mounted Transformers and Switches: Install two ground rods and ground ring around the pad. Ground pad-mounted equipment and noncurrent-carrying metal items associated with substations by connecting them to underground cable and grounding electrodes. Install tinned-copper conductor not less than No. 2 AWG for ground ring and for taps to equipment grounding terminals. Bury ground ring not less than 6 inches (150 mm) from the foundation.

3.4 EQUIPMENT GROUNDING

A. Install insulated equipment grounding conductors with all feeders and branch circuits.

B. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:

1. Feeders and branch circuits.
2. Lighting circuits.
3. Receptacle circuits.
4. Single-phase motor and appliance branch circuits.
5. Three-phase motor and appliance branch circuits.
6. Flexible raceway runs.
7. Armored and metal-clad cable runs.
8. Busway Supply Circuits: Install insulated equipment grounding conductor from grounding bus in the switchgear, switchboard, or distribution panel to equipment grounding bar terminal on busway.
9. Computer and Rack-Mounted Electronic Equipment Circuits: Install insulated equipment grounding conductor in branch-circuit runs from equipment-area power panels and power-distribution units.
10. X-Ray Equipment Circuits: Install insulated equipment grounding conductor in circuits supplying x-ray equipment.

C. Air-Duct Equipment Circuits: Install insulated equipment grounding conductor to duct-mounted electrical devices operating at 120 V and more, including air cleaners, heaters, dampers,

humidifiers, and other duct electrical equipment. Bond conductor to each unit and to air duct and connected metallic piping.

D. Water Heater, Heat-Tracing, and Antifrost Heating Cables: Install a separate insulated equipment grounding conductor to each electric water heater and heat-tracing cable. Bond conductor to heater units, piping, connected equipment, and components.

E. Isolated Grounding Receptacle Circuits: Install an insulated equipment grounding conductor connected to the receptacle grounding terminal. Isolate conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service, unless otherwise indicated.

F. Isolated Equipment Enclosure Circuits: For designated equipment supplied by a branch circuit or feeder, isolate equipment enclosure from supply circuit raceway with a nonmetallic raceway fitting listed for the purpose. Install fitting where raceway enters enclosure, and install a separate insulated equipment grounding conductor. Isolate conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service, unless otherwise indicated.

G. Signal and Communication Equipment: For telephone, alarm, voice and data, and other communication equipment, provide No. 4 AWG minimum insulated grounding conductor in raceway from grounding electrode system to each service location, terminal cabinet, wiring closet, and central equipment location.

1. Service and Central Equipment Locations and Wiring Closets: Terminate grounding conductor on a 1/4-by-2-by-12-inch (6-by-50-by-300-mm) grounding bus.
2. Terminal Cabinets: Terminate grounding conductor on cabinet grounding terminal.

3.5 INSTALLATION

A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.

B. Common Ground Bonding with Lightning Protection System: Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system. Bond electrical power system ground directly to lightning protection system grounding conductor at closest point to electrical service grounding electrode. Use bonding conductor sized same as system grounding electrode conductor, and install in conduit.

C. Ground Rods: Drive rods until tops are 2 inches (50 mm) below finished floor or final grade, unless otherwise indicated.

1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating, if any.
2. For grounding electrode system, install at least three rods spaced at least one-rod length from each other and located at least the same distance from other grounding electrodes, and connect to the service grounding electrode conductor.

D. Test Wells: Ground rod driven through drilled hole in bottom of handhole. Handholes are specified in Division 2 Section "Underground Ducts and Utility Structures," and shall be at least 12 inches (300 mm) deep, with cover.

1. Test Wells: Install at least one test well for each service, unless otherwise indicated. Install at the ground rod electrically closest to service entrance. Set top of test well flush with finished grade or floor.

E. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance, except where routed through short lengths of conduit.

1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install so vibration is not transmitted to rigidly mounted equipment.
3. Use exothermic-welded connectors for outdoor locations, but if a disconnect-type connection is required, use a bolted clamp.

F. Grounding and Bonding for Piping:

1. Metal Water Service Pipe: Install insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes, using a bolted clamp connector or by bolting a lug-type connector to a pipe flange, using one of the lug bolts of the flange. Where a dielectric main water fitting is installed, connect grounding conductor on street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
2. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with a bolted connector.
3. Bond each aboveground portion of gas piping system downstream from equipment shutoff valve.

G. Bonding Interior Metal Ducts: Bond metal air ducts to equipment grounding conductors of associated fans, blowers, electric heaters, and air cleaners. Install tinned bonding jumper to bond across flexible duct connections to achieve continuity.

H. Grounding for Steel Building Structure: Install a driven ground rod at base of each corner column and at intermediate exterior columns at distances not more than 60 feet (18 m) apart.

I. Ufer Ground (Concrete-Encased Grounding Electrode): Fabricate according to NFPA 70, using a minimum of 20 feet (6 m) of bare copper conductor not smaller than No. 4 AWG.

1. If concrete foundation is less than 20 feet (6 m) long, coil excess conductor within base of foundation.
2. Bond grounding conductor to reinforcing steel in at least four locations and to anchor bolts. Extend grounding conductor below grade and connect to building grounding grid or to grounding electrode external to concrete.

3.6 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing and inspecting agency to perform the following field tests and inspections and prepare test reports:

B. Perform the following tests and inspections and prepare test reports:

1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.

2. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal, at ground test wells, and at individual ground rods. Make tests at ground rods before any conductors are connected.

    a. Measure ground resistance not less than two full days after last trace of precipitation and without soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance.
    b. Perform tests by fall-of-potential method according to IEEE 81.

3. Prepare dimensioned drawings locating each test well, ground rod and ground rod assembly, and other grounding electrodes. Identify each by letter in alphabetical order, and key to the record of tests and observations. Include the number of rods driven and their depth at each location, and include observations of weather and other phenomena that may affect test results. Describe measures taken to improve test results.

C. Report measured ground resistances that exceed the following values:

1. Power and Lighting Equipment or System with Capacity 500 kVA and Less: 10 ohms.
2. Power and Lighting Equipment or System with Capacity 500 to 1000 kVA: 5 ohms.
3. Power and Lighting Equipment or System with Capacity More Than 1000 kVA: 3 ohms.
4. Power Distribution Units or Panelboards Serving Electronic Equipment: 1 ohm(s).
5. Substations and Pad-Mounted Equipment: 5 ohms.
6. Manhole Grounds: 10 ohms.
7. ohms.

D. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Architect promptly and include recommendations to reduce ground resistance.

END OF SECTION 16060

SECTION 16075 - ELECTRICAL IDENTIFICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Identification for raceways.
2. Identification of power and control cables.
3. Identification for conductors.
4. Underground-line warning tape.
5. Warning labels and signs.
6. Instruction signs.
7. Equipment identification labels.
8. Miscellaneous identification products.

1.3 SUBMITTALS

A. Product Data: For each electrical identification product indicated.

B. Samples: For each type of label and sign to illustrate size, colors, lettering style, mounting provisions, and graphic features of identification products.

C. Identification Schedule: An index of nomenclature of electrical equipment and system components used in identification signs and labels.

1.4 QUALITY ASSURANCE

A. Comply with ANSI A13.1 and IEEE C2.

B. Comply with NFPA 70.

C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.

D. Comply with ANSI Z535.4 for safety signs and labels.

E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

1.5 COORDINATION

A. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.

B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.

C. Coordinate installation of identifying devices with location of access panels and doors.

D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 POWER RACEWAY IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.

B. Colors for Raceways Carrying Circuits at 600 V or Less:

1. Black letters on an orange field.
2. Legend: Indicate voltage and system or service type.

C. Colors for Raceways Carrying Circuits at More Than 600 V:

1. Black letters on an orange field.
2. Legend: "DANGER CONCEALED HIGH VOLTAGE WIRING" with 3-inch- (75-mm-) high letters on 20-inch (500-mm) centers.

D. Self-Adhesive Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

E. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

F. Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

G. Tape and Stencil for Raceways Carrying Circuits More Than 600 V: 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers diagonally over orange background that extends full length of raceway or duct and is 12 inches (300 mm) wide. Stop stripes at legends.

H. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.

I. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.

1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.
2. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

2.2 ARMORED AND METAL-CLAD CABLE IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.

B. Colors for Raceways Carrying Circuits at 600 V and Less:

1. Black letters on an orange field.
2. Legend: Indicate voltage and system or service type.

C. Colors for Raceways Carrying Circuits at More Than 600 V:

1. Black letters on an orange field.
2. Legend: "DANGER CONCEALED HIGH VOLTAGE WIRING" with 3-inch- (75-mm-) high letters on 20-inch (500-mm) centers.

D. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

E. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; 2 inches (50 mm) wide; compounded for outdoor use.

2.3 POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.

B. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

2.4 CONDUCTOR IDENTIFICATION MATERIALS

A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.

B. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.

2.5 UNDERGROUND-LINE WARNING TAPE

A. Tape:

1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
2. Printing on tape shall be permanent and shall not be damaged by burial operations.
3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.

2.6 WARNING LABELS AND SIGNS

A. Comply with NFPA 70 and 29 CFR 1910.145.

B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.

C. Baked-Enamel Warning Signs:

1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
2. 1/4-inch (6.4-mm) grommets in corners for mounting.
3. Nominal size, 7 by 10 inches (180 by 250 mm).

2.7 INSTRUCTION SIGNS

A. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch (1.6 mm) thick for signs up to 20 sq. inches (129 sq. cm) and 1/8 inch (3.2 mm) thick for larger sizes.

1. Engraved legend with black letters on white face.
2. Punched or drilled for mechanical fasteners.
3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

B. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm).

2.8 EQUIPMENT IDENTIFICATION LABELS

A. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a dark-gray background. Minimum letter height shall be 3/8 inch (10 mm).

B. Stenciled Legend: In nonfading, waterproof, black ink or paint. Minimum letter height shall be 1 inch (25 mm).

2.9 CABLE TIES

A. General-Purpose Cable Ties: Fungus inert, self extinguishing, one piece, self locking, Type 6/6 nylon.

1. Minimum Width: 3/16 inch (5 mm).
2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).

4. Color: Black except where used for color-coding.

B. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self extinguishing, one piece, self locking, Type 6/6 nylon.

1. Minimum Width: 3/16 inch (5 mm).
2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
4. Color: Black.

C. Plenum-Rated Cable Ties: Self extinguishing, UV stabilized, one piece, self locking.

1. Minimum Width: 3/16 inch (5 mm).
2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 7000 psi (48.2 MPa).
3. UL 94 Flame Rating: 94V-0.
4. Temperature Range: Minus 50 to plus 284 deg F (Minus 46 to plus 140 deg C).
5. Color: Black.

2.10 MISCELLANEOUS IDENTIFICATION PRODUCTS

A. Paint: Comply with requirements in Division 9 painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).

B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Verify identity of each item before installing identification products.

B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.

C. Apply identification devices to surfaces that require finish after completing finish work.

D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.

E. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.

F. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.

G. Aluminum Wraparound Marker Labels and Metal Tags: Secure tight to surface of conductor or cable at a location with high visibility and accessibility.

H. Cable Ties: For attaching tags. Use general-purpose type, except as listed below:

1. Outdoors: UV-stabilized nylon.
2. In Spaces Handling Environmental Air: Plenum rated.

I. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches (150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trenchexceeds 16 inches (400 mm) overall.

J. Painted Identification: Comply with requirements in Division 9 painting Sections for surface preparation and paint application.

3.2 IDENTIFICATION SCHEDULE

A. Concealed Raceways, Duct Banks, More Than 600 V, within Buildings: Tape and stencil 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers over orange background that extends full length of raceway or duct and is 12 inches (300 mm) wide. Stencil legend "DANGER CONCEALED HIGH VOLTAGE WIRING" with 3-inch- (75-mm-) high black letters on 20-inch (500-mm) centers. Stop stripes at legends. Apply to the following finished surfaces:

1. Floor surface directly above conduits running beneath and within 12 inches (300 mm) of a floor that is in contact with earth or is framed above unexcavated space.
2. Wall surfaces directly external to raceways concealed within wall.
3. Accessible surfaces of concrete envelope around raceways in vertical shafts, exposed in the building, or concealed above suspended ceilings.

B. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Service, Feeder, and Branch Circuits More Than 30 A, and 120 V to ground: Identify with self-adhesive vinyl label. Install labels at 10-foot (3-m) maximum intervals.

C. Accessible Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive vinyl labels with the wiring system legend and system voltage. System legends shall be as follows:
1. Power.

D. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.

1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service feeder and branch-circuit conductors.

a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
b. Colors for 208/120-V Circuits:

1) Phase A: Black.
2) Phase B: Red.
3) Phase C: Blue.

c. Colors for 480/277-V Circuits:

1) Phase A: Brown.
2) Phase B: Orange.
3) Phase C: Yellow.

d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

E. Power-Circuit Conductor Identification, More than 600 V: For conductors in vaults, pull and junction boxes, manholes, and handholes, use nonmetallic plastic tag holder with adhesive-backed phase tags, and a separate tag with the circuit designation.

F. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.

G. Conductors to Be Extended in the Future: Attach marker tape to conductors and list source.

H. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.

1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.

I. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.

1. Limit use of underground-line warning tape to direct-buried cables.
2. Install underground-line warning tape for both direct-buried cables and cables in raceway.

J. Workspace Indication: Install floor marking tape to show working clearances in the direction of access to live parts. Workspace shall be as required by NFPA 70 and 29 CFR 1926.403 unless otherwise indicated. Do not install at flush-mounted panelboards and similar equipment in finished spaces.

K. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Baked-enamel warning signs.

1. Comply with 29 CFR 1910.145.
2. Identify system voltage with black letters on an orange background.
3. Apply to exterior of door, cover, or other access.
4. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:

a. Power transfer switches.
b. Controls with external control power connections.

L. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.

M. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.

1. Labeling Instructions:

   a. Indoor Equipment: Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where two lines of text are required, use labels 2 inches (50 mm) high.
   b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
   c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
   d. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.

2. Equipment to Be Labeled:

   a. Panelboards: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be self-adhesive, engraved, laminated acrylic or melamine label.
   b. Enclosures and electrical cabinets.
   c. Access doors and panels for concealed electrical items.
   d. Switchgear.
   e. Switchboards.
   f. Transformers: Label that includes tag designation shown on Drawings for the transformer, feeder, and panelboards or equipment supplied by the secondary.
   g. Enclosed switches.
   h. Enclosed circuit breakers.
   i. Enclosed controllers.
   j. Push-button stations.
   k. Contactors.

END OF SECTION 16075

SECTION 16120 - CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Building wires and cables rated 600 V and less.
2. Connectors, splices, and terminations rated 600 V and less.
3. Sleeves and sleeve seals for cables.

B. Related Sections include the following:

1. Division 16 Section "Voice and Data Communication Cabling" for cabling used for voice and data circuits.
2. Division 16 Section "Undercarpet Cables" for flat cables for undercarpet installations.
3. Division 16 Section "Medium-Voltage Cables" for single-conductor and multiconductor cables, cable splices, and terminations for electrical distribution systems with 2001 to 35,000 V.

1.3 DEFINITIONS

A. EPDM: Ethylene-propylene-diene terpolymer rubber.

B. NBR: Acrylonitrile-butadiene rubber.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Qualification Data: For testing agency.

C. Field quality-control test reports.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.

1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association or the National Institute for Certification in Engineering Technologies to supervise on-site testing specified in Part 3.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

C. Comply with NFPA 70.

1.6 COORDINATION

A. Set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Alcan Products Corporation; Alcan Cable Division.
2. American Insulated Wire Corp.; a Leviton Company.
3. Encore Wire
4. Southwire Company.

B. Copper Conductors: Comply with NEMA WC 70.

C. Conductor Insulation: Comply with NEMA WC 70 for Types THHN-THWN SO.

D. Multiconductor Cable: Comply with NEMA WC 70 for metal-clad cable, Type MC with ground wire.

2.2 CONNECTORS AND SPLICES

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. AFC Cable Systems, Inc.
2. Hubbell Power Systems, Inc.
3. O-Z/Gedney; EGS Electrical Group LLC.
4. 3M; Electrical Products Division.
5. Tyco Electronics Corp.

C. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

2.3 SLEEVES FOR CABLES

A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.

B. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.

C. Sleeves for Rectangular Openings: Galvanized sheet steel with minimum 0.052- or 0.138-inch (1.3- or 3.5-mm) thickness as indicated and of length to suit application.

D. Coordinate sleeve selection and application with selection and application of firestopping specified in Division 7 Section "Through-Penetration Firestop Systems."

2.4 SLEEVE SEALS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Advance Products & Systems, Inc.
2. Calpico, Inc.
3. Metraflex Co.
4. Pipeline Seal and Insulator, Inc.

B. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and cable.

1. Sealing Elements: EPDM interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
2. Pressure Plates: Carbon steel. Include two for each sealing element.
3. Connecting Bolts and Nuts: Carbon steel with corrosion-resistant coating of length required to secure pressure plates to sealing elements. Include one for each sealing element.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

A. Service Entrance: Type THHN-THWN, single conductors in raceway.

B. Exposed Feeders: Type THHN-THWN, single conductors in raceway.

C. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspaces: Type THHN-THWN, single conductors in raceway.

D. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.

E. Feeders Installed below Raised Flooring: Type THHN-THWN, single conductors in raceway.

F. Exposed Branch Circuits, Including in Crawlspaces: Type THHN-THWN, single conductors in raceway.

G. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway.

H. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.

I. Branch Circuits Installed below Raised Flooring: Type THHN-THWN, single conductors in raceway.

J. Branch Circuits in Cable Tray: Type THHN-THWN, single conductors in raceway.

K. Cord Drops and Portable Appliance Connections: Type SO, hard service cord with stainless-steel, wire-mesh, strain relief device at terminations to suit application.

L. Class 1 Control Circuits: Type THHN-THWN, in raceway.

M. Class 2 Control Circuits: Type THHN-THWN, in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

A. Conceal cables in finished walls, ceilings, and floors, unless otherwise indicated.

B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

D. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

E. Support cables according to Division 16 Section "Electrical Supports and Seismic Restraints."

F. Identify and color-code conductors and cables according to Division 16 Section "Electrical Identification."

3.4 CONNECTIONS

A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

B. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm) of slack.

3.5 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Coordinate sleeve selection and application with selection and application of firestopping specified in Division 7 Section "Through-Penetration Firestop Systems."

B. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.

C. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.

D. Rectangular Sleeve Minimum Metal Thickness:

1. For sleeve rectangle perimeter less than 50 inches (1270 mm) and no side greater than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).
2. For sleeve rectangle perimeter equal to, or greater than, 50 inches (1270 mm) and 1 or more sides equal to, or greater than, 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

E. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.

F. Cut sleeves to length for mounting flush with both wall surfaces.

G. Extend sleeves installed in floors 2 inches (50 mm) above finished floor level.

H. Seal space outside of sleeves with grout for penetrations of concrete and masonry and with approved joint compound for gypsum board assemblies.

I. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and cable, using joint sealant appropriate for size, depth, and location of joint according to Division 7 Section "Joint Sealants."

J. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at cable penetrations. Install sleeves and seal with firestop materials according to Division 7 Section "Through-Penetration Firestop Systems."

K. Roof-Penetration Sleeves: Seal penetration of individual cables with flexible boot-type flashing units applied in coordination with roofing work.

L. Aboveground Exterior-Wall Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Size sleeves to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.

M. Underground Exterior-Wall Penetrations: Install cast-iron "wall pipes" for sleeves. Size sleeves to allow for 1-inch (25-mm) annular clear space between cable and sleeve for installing mechanical sleeve seals.

3.6 SLEEVE-SEAL INSTALLATION

A. Install to seal underground exterior-wall penetrations.

B. Use type and number of sealing elements recommended by manufacturer for cable material and size. Position cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.7 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly according to Division 7 Section "Through-Penetration Firestop Systems."

3.8 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections and prepare test reports.

B. Perform tests and inspections and prepare test reports.

C. Tests and Inspections:

1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors, and conductors feeding the following critical equipment and services for compliance with requirements.

2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.

D. Test Reports: Prepare a written report to record the following:

1. Test procedures used.
2. Test results that comply with requirements.
3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.

E. Remove and replace malfunctioning units and retest as specified above.

END OF SECTION 16120

SECTION 16130 - RACEWAYS AND BOXES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

B. Related Sections include the following:

1. Division 2 Section "Underground Ducts and Utility Structures" for exterior ductbanks, manholes, and underground utility construction.

1.3 DEFINITIONS

A. EMT: Electrical metallic tubing.

B. ENT: Electrical nonmetallic tubing.

C. EPDM: Ethylene-propylene-diene terpolymer rubber.

D. FMC: Flexible metal conduit.

E. IMC: Intermediate metal conduit.

F. LFMC: Liquidtight flexible metal conduit.

G. LFNC: Liquidtight flexible nonmetallic conduit.

H. NBR: Acrylonitrile-butadiene rubber.

I. RNC: Rigid nonmetallic conduit.

1.4 SUBMITTALS

A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.

B. Shop Drawings: For the following raceway components. Include plans, elevations, sections, details, and attachments to other work.
1. For handholes and boxes for underground wiring, including the following:

a. Duct entry provisions, including locations and duct sizes.
b. Frame and cover design.

c. Grounding details.
d. Dimensioned locations of cable rack inserts, and pulling-in and lifting irons.
e. Joint details.

C. Coordination Drawings: Conduit routing plans, drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved:

1. Structural members in the paths of conduit groups with common supports.
2. HVAC and plumbing items and architectural features in the paths of conduit groups with common supports.

3. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
4. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

D. Qualification Data: For professional engineer and testing agency.

E. Source quality-control test reports.

1.5 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND TUBING

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. AFC Cable Systems, Inc.
2. Alflex Inc.
3. Allied Tube & Conduit; a Tyco International Ltd. Co.
4. Anamet Electrical, Inc.; Anaconda Metal Hose.
5. Electri-Flex Co.
6. Manhattan/CDT/Cole-Flex.
7. Maverick Tube Corporation.
8. O-Z Gedney; a unit of General Signal.
9. Wheatland Tube Company.

B. Rigid Steel Conduit: ANSI C80.1.

C. Aluminum Rigid Conduit: ANSI C80.5.

D. IMC: ANSI C80.6.

E. EMT: ANSI C80.3.

F. FMC: Zinc-coated steel.

G. LFMC: Flexible steel conduit with PVC jacket.

H. Fittings for Conduit (Including all Types and Flexible and Liquidtight), EMT, and Cable: NEMA FB 1; listed for type and size raceway with which used, and for application and environment in which installed.

1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886.
2. Fittings for EMT: , set-screw type.
3. Coating for Fittings for PVC-Coated Conduit: Minimum thickness, 0.040 inch (1 mm), with overlapping sleeves protecting threaded joints.

I. Joint Compound for Rigid Steel Conduit or IMC: Listed for use in cable connector assemblies, and compounded for use to lubricate and protect threaded raceway joints from corrosion and enhance their conductivity.

2.2 NONMETALLIC CONDUIT AND TUBING

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. AFC Cable Systems, Inc.
2. Anamet Electrical, Inc.; Anaconda Metal Hose.
3. Arnco Corporation.
4. CANTEX Inc.
5. CertainTeed Corp.; Pipe & Plastics Group.
6. Condux International, Inc.
7. ElecSYS, Inc.
8. Electri-Flex Co.
9. Lamson & Sessions; Carlon Electrical Products.
10. Manhattan/CDT/Cole-Flex.
11. RACO; a Hubbell Company.
12. Thomas & Betts Corporation.

B. ENT: NEMA TC 13.

C. RNC: NEMA TC 2, Type EPC-40-PVC, unless otherwise indicated.

D. LFNC: UL 1660.

E. Fittings for ENT and RNC: NEMA TC 3; match to conduit or tubing type and material.

F. Fittings for LFNC: UL 514B.

2.3 OPTICAL FIBER/COMMUNICATIONS CABLE RACEWAY AND FITTINGS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Arnco Corporation.
2. Endot Industries Inc.
3. IPEX Inc.

4. Lamson & Sessions; Carlon Electrical Products.

B. Description: Comply with UL 2024; flexible type, approved for plenum installation.

2.4 METAL WIREWAYS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Cooper B-Line, Inc.
2. Hoffman.
3. Square D; Schneider Electric.

B. Description: Sheet metal sized and shaped as indicated, NEMA 250, Type 1, unless otherwise indicated.

C. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.

D. Wireway Covers: Hinged type.

E. Finish: Manufacturer's standard enamel finish.

2.5 NONMETALLIC WIREWAYS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Hoffman.
2. Lamson & Sessions; Carlon Electrical Products.

B. Description: PVC plastic, extruded and fabricated to size and shape indicated, with snap-on cover and mechanically coupled connections with plastic fasteners.

C. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.

2.6 SURFACE RACEWAYS

A. Surface Metal Raceways: Galvanized steel with snap-on covers. Manufacturer's standard enamel finish in color selected by Architect.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Thomas & Betts Corporation.
b. Walker Systems, Inc.; Wiremold Company (The).
c. Wiremold Company (The); Electrical Sales Division.

B. Surface Nonmetallic Raceways: Two-piece construction, manufactured of rigid PVC with texture and color selected by Architect from manufacturer's standard colors.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Manufacturing Company; Walker Division.
b. Enduro Systems, Inc.; Composite Products Division.
c. Hubbell Incorporated; Wiring Device-Kellems Division.
d. Lamson & Sessions; Carlon Electrical Products.
e. Panduit Corp.
f. Walker Systems, Inc.; Wiremold Company (The).
g. Wiremold Company (The); Electrical Sales Division.

2.7 BOXES, ENCLOSURES, AND CABINETS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Cooper Crouse-Hinds; Div. of Cooper Industries, Inc.
2. EGS/Appleton Electric.
3. Erickson Electrical Equipment Company.
4. Hoffman.
5. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
6. O-Z/Gedney; a unit of General Signal.
7. RACO; a Hubbell Company.
8. Robroy Industries, Inc.; Enclosure Division.
9. Scott Fetzer Co.; Adalet Division.
10. Spring City Electrical Manufacturing Company.
11. Thomas & Betts Corporation.
12. Walker Systems, Inc.; Wiremold Company (The).
13. Woodhead, Daniel Company; Woodhead Industries, Inc. Subsidiary.

B. Sheet Metal Outlet and Device Boxes: NEMA OS 1.

C. Cast-Metal Outlet and Device Boxes: NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.

D. Nonmetallic Outlet and Device Boxes: NEMA OS 2.

E. Metal Floor Boxes: Cast or sheet metal, semi-adjustable, rectangular.

F. Nonmetallic Floor Boxes: Nonadjustable, round.

G. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.

H. Cast-Metal Access, Pull, and Junction Boxes: NEMA FB 1, cast aluminum with gasketed cover.

I. Hinged-Cover Enclosures: NEMA 250, Type 1, with continuous-hinge cover with flush latch, unless otherwise indicated.

1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
2. Nonmetallic Enclosures: Plastic.

J. Cabinets:

1. NEMA 250, Type 1, galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
2. Hinged door in front cover with flush latch and concealed hinge.
3. Key latch to match panelboards.
4. Metal barriers to separate wiring of different systems and voltage.
5. Accessory feet where required for freestanding equipment.

2.8 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

A. Description: Comply with SCTE 77.

1. Color of Frame and Cover: Green.
2. Configuration: Units shall be designed for flush burial and have integral closed bottom, unless otherwise indicated.
3. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure.
4. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
5. Cover Legend: Molded lettering, as indicated for each service.
6. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.
7. Handholes 12 inches wide by 24 inches long (300 mm wide by 600 mm long) and larger shall have inserts for cable racks and pulling-in irons installed before concrete is poured.

8. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Armorcast Products Company.
    b. Carson Industries LLC.
    c. CDR Systems Corporation.
    d. NewBasis.

B. Fiberglass Handholes and Boxes with Polymer-Concrete Frame and Cover: Sheet-molded, fiberglass-reinforced, polyester-resin enclosure joined to polymer-concrete top ring or frame.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Armorcast Products Company.
    b. Carson Industries LLC.
    c. Christy Concrete Products.
    d. Synertech Moulded Products, Inc.; a division of Oldcastle Precast.

C. Fiberglass Handholes and Boxes: Molded of fiberglass-reinforced polyester resin, with covers of polymer concrete.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Carson Industries LLC.

b. Christy Concrete Products.
c. Nordic Fiberglass, Inc.

2.9 SLEEVES FOR RACEWAYS

A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.

B. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.

C. Sleeves for Rectangular Openings: Galvanized sheet steel with minimum 0.052- or 0.138-inch (1.3- or 3.5-mm) thickness as indicated and of length to suit application.

D. Coordinate sleeve selection and application with selection and application of firestopping specified in Division 7 Section "Through-Penetration Firestop Systems."

2.10 SOURCE QUALITY CONTROL FOR UNDERGROUND ENCLOSURES

A. Handhole and Pull-Box Prototype Test: Test prototypes of handholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.

1. Tests of materials shall be performed by a independent testing agency.
2. Strength tests of complete boxes and covers shall be by either an independent testing agency or manufacturer. A qualified registered professional engineer shall certify tests by manufacturer.
3. Testing machine pressure gages shall have current calibration certification complying with ISO 9000 and ISO 10012, and traceable to NIST standards.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:

1. Exposed Conduit: Rigid steel conduit.
2. Concealed Conduit, Aboveground: Rigid steel conduit.
3. Underground Conduit: RNC, Type EPC-40-PVC, direct buried.
4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
5. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.

B. Comply with the following indoor applications, unless otherwise indicated:

1. Exposed, Not Subject to Physical Damage: EMT.
2. Exposed, Not Subject to Severe Physical Damage: EMT.
3. Exposed and Subject to Severe Physical Damage: Rigid steel conduit. Includes raceways in the following locations:

a. Loading dock.
b. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.

c. Mechanical rooms.

4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
6. Damp or Wet Locations: Rigid steel conduit.
7. Raceways for Optical Fiber or Communications Cable in Spaces Used for Environmental Air: EMT.
8. Raceways for Optical Fiber or Communications Cable Risers in Vertical Shafts: EMT.
9. Raceways for Concealed General Purpose Distribution of Optical Fiber or Communications Cable: EMT.
10. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4, nonmetallic in damp or wet locations.

C. Minimum Raceway Size: 1/2-inch (16-mm) trade size.

D. Raceway Fittings: Compatible with raceways and suitable for use and location.

1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.
2. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with that material. Patch and seal all joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Use sealant recommended by fitting manufacturer.

E. Install nonferrous conduit or tubing for circuits operating above 60 Hz. Where aluminum raceways are installed for such circuits and pass through concrete, install in nonmetallic sleeve.

F. Do not install aluminum conduits in contact with concrete.

3.2 INSTALLATION

A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.

B. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.

C. Complete raceway installation before starting conductor installation.

D. Support raceways as specified in Division 16 Section "Electrical Supports and Seismic Restraints."

E. Arrange stub-ups so curved portions of bends are not visible above the finished slab.

F. Install no more than the equivalent of three 90-degree bends in any conduit run except for communications conduits, for which fewer bends are allowed.

G. Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.

H. Raceways Embedded in Slabs:

1. Run conduit larger than 1-inch (27-mm) trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support.
2. Arrange raceways to cross building expansion joints at right angles with expansion fittings.
3. Change from ENT to RNC, Type EPC-40-PVC, rigid steel conduit, or IMC before rising above the floor.

I. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.

J. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.

K. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire.

L. Raceways for Optical Fiber and Communications Cable: Install raceways, metallic and nonmetallic, rigid and flexible, as follows:

1. 3/4-Inch (19-mm) Trade Size and Smaller: Install raceways in maximum lengths of 50 feet (15 m).
2. 1-Inch (25-mm) Trade Size and Larger: Install raceways in maximum lengths of 75 feet (23 m).
3. Install with a maximum of two 90-degree bends or equivalent for each length of raceway unless Drawings show stricter requirements. Separate lengths with pull or junction boxes or terminations at distribution frames or cabinets where necessary to comply with these requirements.
4. Use insulating bushings to protect wiring.

M. Expansion-Joint Fittings for RNC: Install in each run of aboveground conduit that is located where environmental temperature change may exceed 30 deg F (17 deg C), and that has straight-run length that exceeds 25 feet (7.6 m).

1. Install expansion-joint fittings for each of the following locations, and provide type and quantity of fittings that accommodate temperature change listed for location:

    a. Outdoor Locations Not Exposed to Direct Sunlight: 125 deg F (70 deg C) temperature change.
    b. Outdoor Locations Exposed to Direct Sunlight: 155 deg F (86 deg C) temperature change.
    c. Indoor Spaces: Connected with the Outdoors without Physical Separation: 125 deg F (70 deg C) temperature change.
    d. Attics: 135 deg F (75 deg C) temperature change.
    e. Insert location and corresponding temperature change.

2. Install fitting(s) that provide expansion and contraction for at least 0.00041 inch per foot of length of straight run per deg F (0.06 mm per meter of length of straight run per deg C) of temperature change.
3. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at the time of installation.

N. Flexible Conduit Connections: Use maximum of 72 inches (1830 mm) of flexible conduit for recessed and semirecessed lighting fixtures, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.

1. Use LFMC in damp or wet locations subject to severe physical damage.
2. Use LFMC or LFNC in damp or wet locations not subject to severe physical damage.

O. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall.

P. Set metal floor boxes level and flush with finished floor surface.

Q. Set nonmetallic floor boxes level. Trim after installation to fit flush with finished floor surface.

3.3 INSTALLATION OF UNDERGROUND CONDUIT

A. Direct-Buried Conduit:

1. Excavate trench bottom to provide firm and uniform support for conduit. Prepare trench bottom as specified in Division 2 Section "Earthwork" for pipe less than 6 inches (150 mm) in nominal diameter.
2. Install backfill as specified in Division 2 Section "Earthwork."
3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction as specified in Division 2 Section "Earthwork."
4. Install manufactured duct elbows for stub-ups at poles and equipment and at building entrances through the floor, unless otherwise indicated. Encase elbows for stub-up ducts throughout the length of the elbow.
5. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through the floor.

    a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches (75 mm) of concrete.
    b. For stub-ups at equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches (1500 mm) from edge of equipment pad or foundation. Install insulated grounding bushings on terminations at equipment.

6. Warning Planks: Bury warning planks approximately 12 inches (300 mm) above direct-buried conduits, placing them 24 inches (600 mm) o.c. Align planks along the width and along the centerline of conduit.

3.4 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.

B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch (12.5-mm) sieve to No. 4 (4.75-mm) sieve and compacted to same density as adjacent undisturbed earth.

C. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch (25 mm) above finished grade.

D. Install handholes and boxes with bottom below the frost line, below grade.

E. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables, but short enough to preserve adequate working clearances in the enclosure.

F. Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.5 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Coordinate sleeve selection and application with selection and application of firestopping specified in Division 7 Section "Through-Penetration Firestop Systems."

B. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.

C. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.

D. Rectangular Sleeve Minimum Metal Thickness:

1. For sleeve cross-section rectangle perimeter less than 50 inches (1270 mm) and no side greater than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).
2. For sleeve cross-section rectangle perimeter equal to, or greater than, 50 inches (1270 mm) and 1 or more sides equal to, or greater than, 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

E. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.

F. Cut sleeves to length for mounting flush with both surfaces of walls.

G. Extend sleeves installed in floors 2 inches (50 mm) above finished floor level.

H. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and raceway unless sleeve seal is to be installed.

I. Seal space outside of sleeves with grout for penetrations of concrete and masonry and with approved joint compound for gypsum board assemblies.

J. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and raceway, using joint sealant appropriate for size, depth, and location of joint. Refer to Division 7 Section "Joint Sealants" for materials and installation.

K. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at raceway penetrations. Install sleeves and seal with firestop materials. Comply with Division 7 Section "Through-Penetration Firestop Systems."

L. Roof-Penetration Sleeves: Seal penetration of individual raceways with flexible, boot-type flashing units applied in coordination with roofing work.

M. Aboveground, Exterior-Wall Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.

N. Underground, Exterior-Wall Penetrations: Install cast-iron "wall pipes" for sleeves. Size sleeves to allow for 1-inch (25-mm) annular clear space between raceway and sleeve for installing mechanical sleeve seals.

3.6 SLEEVE-SEAL INSTALLATION

A. Install to seal underground, exterior wall penetrations.

B. Use type and number of sealing elements recommended by manufacturer for raceway material and size. Position raceway in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.7 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly. Firestopping materials and installation requirements are specified in Division 7 Section "Through-Penetration Firestop Systems."

3.8 PROTECTION

A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.

1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
2. Repair damage to PVC or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION 16130

SECTION 16140 - WIRING DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Receptacles, receptacles with integral GFCI, and associated device plates.
2. Twist-locking receptacles.
3. Isolated-ground receptacles.
4. Snap switches and wall-box dimmers.
5. Hospital-grade receptacles.
6. Wall-switch and exterior occupancy sensors.
7. Communications outlets.
8. Pendant cord-connector devices.
9. Cord and plug sets.
10. Floor service outlets, poke-through assemblies, service poles, and multioutlet assemblies.

B. Related Sections include the following:

1. Division 16 Section "Voice and Data Communication Cabling" for workstation outlets.

1.3 DEFINITIONS

A. EMI: Electromagnetic interference.

B. GFCI: Ground-fault circuit interrupter.

C. Pigtail: Short lead used to connect a device to a branch-circuit conductor.

D. RFI: Radio-frequency interference.

E. TVSS: Transient voltage surge suppressor.

F. UTP: Unshielded twisted pair.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: List of legends and description of materials and process used for premarking wall plates.

C. Field quality-control test reports.

D. Operation and Maintenance Data: For wiring devices to include in all manufacturers' packing label warnings and instruction manuals that include labeling conditions.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain each type of wiring device and associated wall plate through one source from a single manufacturer. Insofar as they are available, obtain all wiring devices and associated wall plates from a single manufacturer and one source.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

C. Comply with NFPA 70.

1.6 COORDINATION

A. Receptacles for Owner-Furnished Equipment: Match plug configurations.

1. Cord and Plug Sets: Match equipment requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers' Names: Shortened versions (shown in parentheses) of the following manufacturers' names are used in other Part 2 articles:

1. Cooper Wiring Devices; a division of Cooper Industries, Inc. (Cooper).
2. Hubbell Incorporated; Wiring Device-Kellems (Hubbell).
3. Leviton Mfg. Company Inc. (Leviton).
4. Pass & Seymour/Legrand; Wiring Devices & Accessories (Pass & Seymour).

2.2 STRAIGHT BLADE RECEPTACLES

A. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 configuration 5-20R, and UL 498.
1. Products: Subject to compliance with requirements, provide one of the following:

a. Cooper; 5351 (single), 5352 (duplex).
b. Hubbell; HBL5351 (single), CR5352 (duplex).
c. Leviton; 5891 (single), 5352 (duplex).
d. Pass & Seymour; 5381 (single), 5352 (duplex).

B. Isolated-Ground, Duplex Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 configuration 5-20R, and UL 498.
1. Products: Subject to compliance with requirements, provide one of the following:

a. Hubbell; CR 5253IG.
b. Leviton; 5362-IG.
c. Pass & Seymour; IG6300.

2. Description: Straight blade; equipment grounding contacts shall be connected only to the green grounding screw terminal of the device and with inherent electrical isolation from mounting strap. Isolation shall be integral to receptacle construction and not dependent on removable parts.

2.3 GFCI RECEPTACLES

A. General Description: Straight blade, non-feed-through type. Comply with NEMA WD 1, NEMA WD 6, UL 498, and UL 943, Class A, and include indicator light that is lighted when device is tripped.

B. Duplex GFCI Convenience Receptacles, 125 V, 20 A:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
2. Products: Subject to compliance with requirements, provide one of the following:

a. Cooper; GF20.
b. Pass & Seymour; 2084.

2.4 TWIST-LOCKING RECEPTACLES

A. Single Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 configuration L5-20R, and UL 498.
1. Products: Subject to compliance with requirements, provide one of the following:

a. Cooper; L520R.
b. Hubbell; HBL2310.
c. Leviton; 2310.
d. Pass & Seymour; L520-R.

B. Isolated-Ground, Single Convenience Receptacles, 125 V, 20 A:
1. Products: Subject to compliance with requirements, provide one of the following:

a. Hubbell; IG2310.
b. Leviton; 2310-IG.

2. Description: Comply with NEMA WD 1, NEMA WD 6 configuration L5-20R, and UL 498. Equipment grounding contacts shall be connected only to the green grounding screw terminal of the device and with inherent electrical isolation from mounting strap. Isolation shall be integral to receptacle construction and not dependent on removable parts.

2.5 SNAP SWITCHES

A. Comply with NEMA WD 1 and UL 20.

B. Switches, 120/277 V, 20 A:
1. Products: Subject to compliance with requirements, provide one of the following:

a. Cooper; 2221 (single pole), 2222 (two pole), 2223 (three way), 2224 (four way).
b. Hubbell; CS1221 (single pole), CS1222 (two pole), CS1223 (three way), CS1224 (four way).
c. Leviton; 1221-2 (single pole), 1222-2 (two pole), 1223-2 (three way), 1224-2 (four way).
d. Pass & Seymour; 20AC1 (single pole), 20AC2 (two pole), 20AC3 (three way), 20AC4 (four way).

C. Key-Operated Switches, 120/277 V, 20 A:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
2. Products: Subject to compliance with requirements, provide one of the following:

a. Cooper; 2221L.
b. Hubbell; HBL1221L.
c. Leviton; 1221-2L.
d. Pass & Seymour; PS20AC1-L.

3. Description: Single pole, with factory-supplied key in lieu of switch handle.

D. Single-Pole, Double-Throw, Momentary Contact, Center-Off Switches, 120/277 V, 20 A; for use with mechanically held lighting contactors.
1. Products: Subject to compliance with requirements, provide one of the following:

a. Cooper; 1995.
b. Hubbell; HBL1557.
c. Leviton; 1257.
d. Pass & Seymour; 1251.

E. Key-Operated, Single-Pole, Double-Throw, Momentary Contact, Center-Off Switches, 120/277 V, 20 A; for use with mechanically held lighting contactors, with factory-supplied key in lieu of switch handle.
1. Products: Subject to compliance with requirements, provide one of the following:

a. Cooper; 1995L.
b. Hubbell; HBL1557L.
c. Leviton; 1257L.
d. Pass & Seymour; 1251L.

2.6 WALL-BOX DIMMERS

A. Dimmer Switches: Modular, full-wave, solid-state units with integral, quiet on-off switches, with audible frequency and EMI/RFI suppression filters.

B. Control: Continuously adjustable slider; with single-pole or three-way switching. Comply with UL 1472.

C. Fluorescent Lamp Dimmer Switches: Modular; compatible with dimmer ballasts; trim potentiometer to adjust low-end dimming; dimmer-ballast combination capable of consistent dimming with low end not greater than 20 percent of full brightness.

2.7 COMMUNICATIONS OUTLETS

A. Telephone Outlet:
   1. Products: Subject to compliance with requirements, provide one of the following:

      a. Cooper; 3560-6.
      b. Leviton; 40649.

   2. Description: Single RJ-45 jack for terminating 100-ohm, balanced, four-pair UTP; TIA/EIA-568-B.1; complying with Category 5e. Comply with UL 1863.

B. Combination TV and Telephone Outlet:

   1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
   2. Products: Subject to compliance with requirements, provide one of the following:

      a. Cooper; 3562.
      b. Leviton; 40595.

   3. Description: Single RJ-45 jack for 100-ohm, balanced, four-pair UTP; TIA/EIA-568-B.1; complying with Category 5e; and one Type F coaxial cable connector.

2.8 WALL PLATES

A. Single and combination types to match corresponding wiring devices.

   1. Plate-Securing Screws: Metal with head color to match plate finish.
   2. Material for Finished Spaces: Smooth, high-impact thermoplastic.
   3. Material for Unfinished Spaces: Smooth, high-impact thermoplastic.
   4. Material for Damp Locations: Thermoplastic with spring-loaded lift cover, and listed and labeled for use in "wet locations."

B. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with type 3R weather-resistant thermoplastic with lockable cover.

2.9 FINISHES

A. Color: Wiring device catalog numbers in Section Text do not designate device color.

   1. Wiring Devices Connected to Normal Power System: As selected by Architect, unless otherwise indicated or required by NFPA 70 or device listing.
   2. Wiring Devices Connected to Emergency Power System: Red.
   3. TVSS Devices: Blue.
   4. Isolated-Ground Receptacles: As specified above, with orange triangle on face.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with NECA 1, including the mounting heights listed in that standard, unless otherwise noted.

B. Coordination with Other Trades:

1. Take steps to insure that devices and their boxes are protected. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of the boxes.
2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
4. Install wiring devices after all wall preparation, including painting, is complete.

C. Conductors:

1. Do not strip insulation from conductors until just before they are spliced or terminated on devices.
2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
4. Existing Conductors:

a. Cut back and pigtail, or replace all damaged conductors.
b. Straighten conductors that remain and remove corrosion and foreign matter.
c. Pigtailing existing conductors is permitted provided the outlet box is large enough.

D. Device Installation:

1. Replace all devices that have been in temporary use during construction or that show signs that they were installed before building finishing operations were complete.
2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
4. Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.
5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, 2/3 to 3/4 of the way around terminal screw.
6. Use a torque screwdriver when a torque is recommended or required by the manufacturer.
7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
8. Tighten unused terminal screws on the device.
9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device mounting screws in yokes, allowing metal-to-metal contact.

E. Receptacle Orientation:

1. Install ground pin of vertically mounted receptacles up, and on horizontally mounted receptacles to the right.

F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.

G. Dimmers:

1. Install dimmers within terms of their listing.
2. Verify that dimmers used for fan speed control are listed for that application.
3. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' device listing conditions in the written instructions.

H. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.

I. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

3.2 IDENTIFICATION

A. Comply with Division 16 Section "Electrical Identification."

1. Receptacles: Identify panelboard and circuit number from which served. Use hot, stamped or engraved machine printing with black-filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

3.3 FIELD QUALITY CONTROL

A. Perform tests and inspections and prepare test reports.

1. In healthcare facilities, prepare reports that comply with recommendations in NFPA 99.
2. Test Instruments: Use instruments that comply with UL 1436.
3. Test Instrument for Convenience Receptacles: Digital wiring analyzer with digital readout or illuminated LED indicators of measurement.

B. Tests for Convenience Receptacles:

1. Line Voltage: Acceptable range is 105 to 132 V.
2. Percent Voltage Drop under 15-A Load: A value of 6 percent or higher is not acceptable.
3. Ground Impedance: Values of up to 2 ohms are acceptable.
4. GFCI Trip: Test for tripping values specified in UL 1436 and UL 943.
5. Using the test plug, verify that the device and its outlet box are securely mounted.
6. The tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.

END OF SECTION 16140

SECTION 16145 - LIGHTING CONTROL DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following lighting control devices:

1. Time switches.
2. Indoor photoelectric switches.
3. Lighting contactors.

B. Related Sections include the following:

1. Division 13 Section "Lighting Controls" for low-voltage, manual and programmable lighting control systems.
2. Division 16 Section "Wiring Devices" for wall-box dimmers, wall-switch occupancy sensors, and manual light switches.

1.3 DEFINITIONS

A. LED: Light-emitting diode.

B. PIR: Passive infrared.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Show installation details for occupancy and light-level sensors.

1. Interconnection diagrams showing field-installed wiring.

C. Field quality-control test reports.

D. Operation and Maintenance Data: For each type of product to include in emergency, operation, and maintenance manuals.

1.5 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.6 COORDINATION

A. Coordinate layout and installation of ceiling-mounted devices with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, smoke detectors, fire-suppression system, and partition assemblies.

PART 2 - PRODUCTS

2.1 TIME SWITCHES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Intermatic, Inc.
2. TORK.
3. Watt Stopper (The).

B. Electronic Time Switches: Electronic, solid-state programmable units with alphanumeric display; complying with UL 917.

1. Contact Configuration: SPST.
2. Contact Rating: 20-A ballast load, 120/240-V ac.
3. Program: 2 on-off set points on a 24-hour schedule, allowing different set points for each day of the week and an annual holiday schedule that overrides the weekly operation on holidays.
4. Circuitry: Allow connection of a photoelectric relay as substitute for on-off function of a program.
5. Astronomic Time: All channels.
6. Battery Backup: For schedules and time clock.

2.2 OUTDOOR PHOTOELECTRIC SWITCHES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Intermatic, Inc.
2. TORK.
3. Watt Stopper (The).

B. Description: Solid state, with SPST dry contacts rated for 1800-VA tungsten or 1000-VA inductive, to operate connected relay, contactor coils, or microprocessor input; complying with UL 773A.

1. Light-Level Monitoring Range: 1.5 to 10 fc (16.14 to 108 lx), with an adjustment for turn-on and turn-off levels within that range, and a directional lens in front of photocell to prevent fixed light sources from causing turn-off.
2. Time Delay: 15-second minimum, to prevent false operation.
3. Surge Protection: Metal-oxide varistor, complying with IEEE C62.41.1, IEEE C62.41.2, and IEEE 62.45 for Category A1 locations.
4. Mounting: Twist lock complying with IEEE C136.10, with base-and-stem mounting or stem-and-swivel mounting accessories as required to direct sensor to the north sky exposure.

2.3 LIGHTING CONTACTORS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Eaton Electrical Inc.; Cutler-Hammer Products.
   2. GE Industrial Systems; Total Lighting Control.
   3. Square D; Schneider Electric.
   4. TORK.
   5. Watt Stopper (The).

B. Description: Electrically operated and electrically held, combination type with nonfused disconnect, complying with NEMA ICS 2 and UL 508.

   1. Current Rating for Switching: Listing or rating consistent with type of load served, including tungsten filament, inductive, and high-inrush ballast (ballast with 15 percent or less total harmonic distortion of normal load current).
   2. Fault Current Withstand Rating: Equal to or exceeding the available fault current at the point of installation.
   3. Enclosure: Comply with NEMA 250.
   4. Provide with control and pilot devices as indicated on Drawings, matching the NEMA type specified for the enclosure.

2.4 CONDUCTORS AND CABLES

A. Power Wiring to Supply Side of Remote-Control Power Sources: Not smaller than No. 12 AWG. Comply with requirements in Division 16 Section "Conductors and Cables."

B. Classes 2 and 3 Control Cable: Multiconductor cable with stranded-copper conductors not smaller than No. 18 AWG. Comply with requirements in Division 16 Section "Conductors and Cables."

C. Class 1 Control Cable: Multiconductor cable with stranded-copper conductors not smaller than No. AWG. Comply with requirements in Division 16 Section "Conductors and Cables."

PART 3 - EXECUTION

3.1 CONTACTOR INSTALLATION

A. Mount electrically held lighting contactors with elastomeric isolator pads, to eliminate structure-borne vibration, unless contactors are installed in an enclosure with factory-installed vibration isolators.

3.2 WIRING INSTALLATION

A. Wiring Method: Comply with Division 16 Section "Conductors and Cables." Minimum conduit size shall be 1/2 inch (13 mm).

B. Wiring within Enclosures: Comply with NECA 1. Separate power-limited and nonpower-limited conductors according to conductor manufacturer's written instructions.

C. Size conductors according to lighting control device manufacturer's written instructions, unless otherwise indicated.

D. Splices, Taps, and Terminations: Make connections only on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures.

3.3 IDENTIFICATION

A. Identify components and power and control wiring according to Division 16 Section "Electrical Identification."

1. Identify controlled circuits in lighting contactors.
2. Identify circuits or luminaries controlled by photoelectric and occupancy sensors at each sensor.

B. Label time switches and contactors with a unique designation.

3.4 FIELD QUALITY CONTROL

A. Perform the following field tests and inspections and prepare test reports:

1. After installing time switches and sensors, and after electrical circuitry has been energized, adjust and test for compliance with requirements.
2. Operational Test: Verify operation of each lighting control device, and adjust time delays.

B. Lighting control devices that fail tests and inspections are defective work.

3.5 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting sensors to suit occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose.

3.6 DEMONSTRATION

A. Coordinate demonstration of products specified in this Section with demonstration requirements for low-voltage, programmable lighting control system specified in Division 13 Section "Lighting Controls."

B. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain lighting control devices. Refer to Division 1 Section "Demonstration and Training."

END OF SECTION 16145

SECTION 16289 - SURGE PROTECTIVE DEVICES FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes field-mounted SPDs for low-voltage (120 to 600 V) power distribution and control equipment.

B. Related Sections:

1. Division 16 Section "Switchboards" for factory-installed SPD.
2. Division 16 Section "Panelboards" for factory-installed SPD.

1.3 DEFINITIONS

A. ATS: Acceptance Testing Specifications.

B. VPR: Voltage Protection Rating.

C. SPD: Surge Protective Device(s).

1.4 SUBMITTALS

A. Product Data: For each type of product indicated. Include rated capacities, operating weights, electrical characteristics, furnished specialties, and accessories.

B. Qualification Data: For qualified testing agency.

C. Product Certificates: For SPDs, from manufacturer.

D. Field quality-control reports.

E. Operation and Maintenance Data: For SPDs to include in emergency, operation, and maintenance manuals.

F. Warranties: Sample of special warranties.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: UL or an NRTL.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by UL, and marked for intended location and application.

C. Comply with ANSI/IEEE C62.41.1-2002 & ANSI/IEEE C62.41.2-2002 and test devices according to ANSI/IEEE C62.45-2002.

D. Shall be UL 1449 3rd Edition Listed and UL1283 complimentary listed.

E. Comply with NFPA 70.

F. Comply with NEC Article 285 – Correct Installation of Surge Protective Devices.

1.6 PROJECT CONDITIONS

A. Service Conditions: Rate SPDs for continuous operation under the following conditions unless otherwise indicated:

1. Maximum Continuous Operating Voltage: Not less than 115 percent of nominal system operating voltage for 480Y/277 V and not less than 125 percent of nominal system voltage for 208Y/120 V.
2. Operating Temperature: 30 to 120 deg F (0 to 50 deg C).
3. Humidity: 0 to 85 percent, noncondensing.
4. Altitude: Less than 20,000 feet (6090 m) above sea level.

1.7 COORDINATION

A. Coordinate location of field-mounted SPDs to allow adequate clearances for maintenance.

B. Coordinate SPD with Division 26 Section "Electrical Power Monitoring and Control."

1.8 WARRANTY

A. Special Warranty: After SPD is installed per manufacturer's instructions, the manufacturer shall replace components of modular surge protection devices and replace complete non-modular suppressors that fail in materials or workmanship, or any other end-of life electrical event, including lightning within specified warranty period.

1. Warranty Period: Ten (10) years from date of Substantial Completion.

B. Special Warranty for Cord-Connected, Plug-in Surge Protective Devices: Manufacturer's standard form in which manufacturer agrees to repair or replace electronic equipment connected to circuits protected by surge protective devices.

PART 2 - PRODUCTS

2.1 SERVICE ENTRANCE SURGE PROTECTIVE DEVICE

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Current Technology Inc.
2. Thor Systems
3. Liebert
4. Advanced Protection Technologies (APT)

B. Surge Protection Devices:

1. Shall be UL 1449 3rd Edition Listed and UL1283 complimentary listed.
2. Modular design (with field-replaceable modules).
3. The SPD shall be UL labeled with a Short Circuit Current Rating (SCCR) of 200 kA. Fuse ratings shall not be considered in lieu of demonstrated withstand testing of the SPD, per NEC 285.6.
4. Fabrication using bolted compression lugs for internal wiring.
5. Arrangement with copper bus bars and for bolted connections to phase buses, neutral bus, and ground bus.
6. Arrangement with wire connections to phase buses, neutral bus, and ground bus.
7. SPD shall include visual LED diagnostics including a minimum of one green LED indicator light per phase for protection status and one red service light.
8. SPD shall include a diagnostic test switch and an audible alarm, with an on/off silencing switch, to indicate when protection has failed.
9. Form-C contacts rated at 5 A and 250-V ac, one normally open and one normally closed, for remote monitoring of protection status. Contacts shall reverse on failure of any surge diversion module or on opening of any current-limiting device. Coordinate with building power monitoring and control system.
10. Six-digit transient-event counter with reset with EPROM memory, which retains the data while power is off to the SPD.
11. SPD shall be UL labeled as a Type 1 (verifiable at UL.com) intended for use without need for external or supplemental overcurrent control. Every suppression component of every mode, including N-G, shall be protected by internal overcurrent and thermal over temperature controls. SPDs relying upon external or supplementary installed safety disconnectors do not meet the intent to this specification.
12. SPD shall be UL labeled with 20 kA I nominal (I-n) (verifiable at UL.com) for compliance to UL 96A Lightning Protection Master Label and NFPA 780.
13. Suppression components shall be heavy duty, large block MOVs, each exceeding 30 mm in diameter.
14. SPD shall provide surge current paths for all modes of protection: L-N, L-G and N-G for wye systems; L-L and L-G in Delta and impedance grounded wye systems.
15. Integral disconnect switch if there is no breaker position is available.

C. Peak Single Impulse Surge Current Rating: 150 kA per mode/300 kA per phase.

D. Protection modes and UL 1449 Third Edition VPR for grounded wye circuits with 480Y/277 V, 3-phase, 4-wire circuits shall be as follows:
1. Line to Neutral: 1200 V for 480Y/277 V
2. Line to Ground: 1200 V for 480Y/277 V
3. Neutral to Ground: 1200 V for 480Y/277 V

2.2 PANELBOARD SURGE PROTECTIVE DEVICES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Current Technology Inc.
2. Thomas & Betts

3. Thor Systems
4. Liebert
5. Advanced Protection Technologies (APT)

B. Surge Protection Devices:

1. Shall be UL 1449 3rd Edition Listed and UL1283 complimentary listed.
2. Non-Modular design.
3. The SPD shall be UL 1449 3rd Edition Listed and labeled with a Short Circuit Current Rating (SCCR) of 200 kA. Fuse ratings shall not be used in lieu of demonstrated withstand testing of the SPD per the NEC Article 285.6. The SPD shall match or exceed the panelboard short-circuit rating.
4. The SPD shall have redundant suppression circuits; with thermally protected individually fused metal-oxide varistors.
5. Arrangement with copper bus bars and for bolted connections to phase buses, neutral bus, and ground bus.
6. LED indicator lights for power and protection status.
7. Audible alarm, with silencing switch, to indicate when protection has failed.
8. Form-C contacts rated at 5 A and 250-V ac, one normally open and one normally closed, for remote monitoring of protection status. Contacts shall reverse on failure of any surge diversion module or on opening of any current-limiting device. Coordinate with building power monitoring and control system.
9. Six-digit transient-event counter with reset.
10. SPD shall be UL labeled as a Type 1 (verifiable at UL.com) intended for use without need for external or supplemental overcurrent control. Every suppression component of every mode, including N-G, shall be protected by internal overcurrent and thermal over temperature controls. SPDs relying upon external or supplementary installed safety disconnectors do not meet the intent to this specification.
11. SPD shall be UL labeled with 20 kA I nominal (I-n) (verifiable at UL.com) for compliance to UL 96A Lightning Protection Master Label and NFPA 780.
12. Suppression components shall be heavy duty, large block MOVs, each exceeding 30 mm in diameter.
13. Integral disconnect switch if there is no breaker position is available.

C. Peak Single-Impulse Surge Current Rating: 150 kA per mode/ 300 kA per phase.

D. Protection modes and UL 1449 Third Edition VPR for grounded wye circuit with 480Y/277 V, 3-phase, 4-wire circuits shall not exceed the following:
1. Line to Neutral: 700 V for 208Y/120 V
2. Line to Ground: 700 V for 208Y/120 V
3. Neutral to Ground: 700 V for 208Y/120 V

2.3 ENCLOSURES

A. Indoor Enclosures: NEMA 250 Type 1.

B. Outdoor Enclosures: NEMA 250 Type 3R.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Per NEC2011 Article 285.23, install UL 1449 3rd Edition Listed and Labeled, Type 1 SPDs at the service entrance on the load side, with ground lead bonded to the service entrance ground.

B. Install SPD for panelboards and auxiliary panels with conductors or buses between the SPD and point of attachment as short and straight as possible. Do not exceed manufacturer's recommended lead length. Do not bond neutral and ground.
   1. Provide a 3-pole circuit breaker as a dedicated disconnecting means for SPD per SPD manufacturer's instructions.

3.2 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform inspections.

B. Manufacturer's Field Service: Verify that electrical wiring installation complies with manufacturer's written installation requirements.

C. Inspections:
   1. After installing SPDs but before electrical circuitry has been energized, test for compliance with requirements.
   2. Complete startup checks according to manufacturer's written instructions.

D. SPD will be considered defective if it does not pass inspections. Prepare test and inspection reports.

E. Prepare inspection reports.

F. Submit to engineer a schedule of installed SPDs listing the panel name, voltage configuration, and SPD part number and serial number. Also provide a digital image each SPD with panel cover removed to show SPD conductors and connections.

G. Do not energize the SPDs until the installer has verified service and separately derived system's neutral to ground bonding jumpers are installed and connected correctly per NEC.

END OF SECTION 16289

SECTION 16410 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fusible switches.
2. Nonfusible switches.
3. Enclosures.

1.3 DEFINITIONS

A. NC: Normally closed.

B. NO: Normally open.

C. SPDT: Single pole, double throw.

1.4 SUBMITTALS

A. Product Data: For each type of enclosed switch, circuit breaker, accessory, and component indicated. Include dimensioned elevations, sections, weights, and manufacturers' technical data on features, performance, electrical characteristics, ratings, accessories, and finishes.

1. Enclosure types and details for types other than NEMA 250, Type 1.
2. Current and voltage ratings.
3. Short-circuit current ratings (interrupting and withstand, as appropriate).
4. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices, accessories, and auxiliary components.
5. Retain subparagraph below if final system short-circuit and coordination studies will be performed by the designer or will be assigned to an independent consultant. These curves are also beneficial to Owner for future additions or reevaluations of settings of overcurrent protective devices. Although some manufacturers no longer offer curves on translucent graph paper, curves can normally be downloaded from manufacturers' Web sites or be obtained, in electronic form, from various coordination software vendors as part of a subscription service. Retain option in subparagraph below only if manufacturers selected offer

B. Shop Drawings: For enclosed switches and circuit breakers. Include plans, elevations, sections, details, and attachments to other work.

1. Wiring Diagrams: For power, signal, and control wiring.

C. Qualification Data: For qualified testing agency.

D. Field quality-control reports.

1. Test procedures used.
2. Test results that comply with requirements.
3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.

E. Manufacturer's field service report.

F. Operation and Maintenance Data: For enclosed switches and circuit breakers to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 1 Section "Operation and Maintenance Data," include the following:

1. Manufacturer's written instructions for testing and adjusting enclosed switches and circuit breakers.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: Member company of NETA or an NRTL.

1. Testing Agency's Field Supervisor: Currently certified by NETA to supervise on-site testing.

B. Source Limitations: Obtain enclosed switches and circuit breakers, overcurrent protective devices, components, and accessories, within same product category, from single source from single manufacturer.

C. Product Selection for Restricted Space: Drawings indicate maximum dimensions for enclosed switches and circuit breakers, including clearances between enclosures, and adjacent surfaces and other items. Comply with indicated maximum dimensions.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

E. Comply with NFPA 70.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Rate equipment for continuous operation under the following conditions unless otherwise indicated:

1. Ambient Temperature: Not less than minus 22 deg F (minus 30 deg C) and not exceeding 104 deg F (40 deg C).
2. Altitude: Not exceeding 6600 feet (2010 m).

1.7 COORDINATION

A. Coordinate layout and installation of switches, circuit breakers, and components with equipment served and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

PART 2 - PRODUCTS

2.1 FUSIBLE SWITCHES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
2. General Electric Company; GE Consumer & Industrial - Electrical Distribution.
3. Siemens Energy & Automation, Inc.
4. Square D; a brand of Schneider Electric.

B. Type HD, Heavy Duty, Single Throw, 600-V ac, 1200 A and Smaller: UL 98 and NEMA KS 1, horsepower rated, with clips or bolt pads to accommodate specified fuses, lockable handle with capability to accept three padlocks, and interlocked with cover in closed position.

C. Accessories:

1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
3. Isolated Ground Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
4. Class R Fuse Kit: Provides rejection of other fuse types when Class R fuses are specified.
5. Lugs: Mechanical type, suitable for number, size, and conductor material.
6. Service-Rated Switches: Labeled for use as service equipment.

2.2 NONFUSIBLE SWITCHES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
2. Siemens Energy & Automation, Inc.
3. Square D; a brand of Schneider Electric.

B. Type HD, Heavy Duty, Single Throw, 600-V ac, 1200 A and Smaller: UL 98 and NEMA KS 1, horsepower rated, lockable handle with capability to accept three padlocks, and interlocked with cover in closed position.

C. Accessories:

1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
3. Isolated Ground Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
4. Lugs: Mechanical type, suitable for number, size, and conductor material.

2.3 ENCLOSURES

A. Enclosed Switches and Circuit Breakers: NEMA AB 1, NEMA KS 1, NEMA 250, and UL 50, to comply with environmental conditions at installed location.

1. Indoor, Dry and Clean Locations: NEMA 250, Type 1.
2. Outdoor Locations: NEMA 250, Type 3R.
3. Kitchen Areas: NEMA 250, Type 4X,.
4. Other Wet or Damp, Indoor Locations: NEMA 250, Type 4.
5. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 12.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine elements and surfaces to receive enclosed switches and circuit breakers for compliance with installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install individual wall-mounted switches and circuit breakers with tops at uniform height unless otherwise indicated.

B. Comply with mounting and anchoring requirements specified in Division 16 Section "Vibration and Seismic Controls for Electrical Systems."

C. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.

D. Install fuses in fusible devices.

E. Comply with NECA 1.

3.3 IDENTIFICATION

A. Comply with requirements in Division 16 Section "Electrical Identification."

1. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.
2. Label each enclosure with engraved metal or laminated-plastic nameplate.

3.4 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

C. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

D. Acceptance Testing Preparation:

1. Test insulation resistance for each enclosed switch and circuit breaker, component, connecting supply, feeder, and control circuit.
2. Test continuity of each circuit.

E. Tests and Inspections:

1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
3. Perform the following infrared scan tests and inspections and prepare reports:

a. Initial Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each enclosed switch and circuit breaker. Remove front panels so joints and connections are accessible to portable scanner.
b. Follow-up Infrared Scanning: Perform an additional follow-up infrared scan of each enclosed switch and circuit breaker 11 months after date of Substantial Completion.
c. Instruments and Equipment: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.

4. Test and adjust controls, remote monitoring, and safeties. Replace damaged and malfunctioning controls and equipment.

F. Enclosed switches and circuit breakers will be considered defective if they do not pass tests and inspections.

G. Prepare test and inspection reports, including a certified report that identifies enclosed switches and circuit breakers and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 ADJUSTING

A. Adjust moving parts and operable components to function smoothly, and lubricate as recommended by manufacturer.

END OF SECTION 16410

SECTION 16442 - PANELBOARDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Distribution panelboards.
2. Lighting and appliance branch-circuit panelboards.
3. Load centers.
4. Electronic-grade panelboards.

1.3 DEFINITIONS

A. SVR: Suppressed voltage rating.

B. TVSS: Transient voltage surge suppressor.

1.4 PERFORMANCE REQUIREMENTS

1.5 SUBMITTALS

A. Product Data: For each type of panelboard, switching and overcurrent protective device, transient voltage suppression device, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.

B. Shop Drawings: For each panelboard and related equipment.

1. Include dimensioned plans, elevations, sections, and details. Show tabulations of installed devices, equipment features, and ratings.
2. Detail enclosure types and details for types other than NEMA 250, Type 1.
3. Detail bus configuration, current, and voltage ratings.
4. Short-circuit current rating of panelboards and overcurrent protective devices.
5. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
6. Include wiring diagrams for power, signal, and control wiring.

C. Qualification Data: For qualified testing agency.

D. Field Quality-Control Reports:

1. Test procedures used.
2. Test results that comply with requirements.
3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.

E. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.

F. Operation and Maintenance Data: For panelboards and components to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 1 Section "Operation and Maintenance Data," include the following:

1. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
2. Time-current curves, including selectable ranges for each type of overcurrent protective device that allows adjustments.

1.6 QUALITY ASSURANCE

A. Testing Agency Qualifications: Member company of NETA or an NRTL.

1. Testing Agency's Field Supervisor: Currently certified by NETA to supervise on-site testing.

B. Source Limitations: Obtain panelboards, overcurrent protective devices, components, and accessories from single source from single manufacturer.

C. Product Selection for Restricted Space: Drawings indicate maximum dimensions for panelboards including clearances between panelboards and adjacent surfaces and other items. Comply with indicated maximum dimensions.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

E. Comply with NEMA PB 1.

F. Comply with NFPA 70.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Remove loose packing and flammable materials from inside panelboards; install temporary electric heating (250 W per panelboard) to prevent condensation.

B. Handle and prepare panelboards for installation according to NECA 407.

1.8 PROJECT CONDITIONS

A. Environmental Limitations:

1. Do not deliver or install panelboards until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above panelboards is complete, and temporary

HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

2. Rate equipment for continuous operation under the following conditions unless otherwise indicated:

   a. Ambient Temperature: Not exceeding minus 22 deg F (minus 30 deg C) to plus 104 deg F (plus 40 deg C).
   b. Altitude: Not exceeding 6600 feet (2000 m).

B. Service Conditions: NEMA PB 1, usual service conditions, as follows:

1. Ambient temperatures within limits specified.
2. Altitude not exceeding 6600 feet (2000 m).

1.9 COORDINATION

A. Coordinate layout and installation of panelboards and components with other construction that penetrates walls or is supported by them, including electrical and other types of equipment, raceways, piping, encumbrances to workspace clearance requirements, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

B. Coordinate sizes and locations of concrete bases with actual equipment provided. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 3.

1.10 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace transient voltage suppression devices that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

1.11 EXTRA MATERIALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Keys: Two spares for each type of panelboard cabinet lock.
2. Circuit Breakers Including GFCI and Ground Fault Equipment Protection (GFEP) Types: Two spares for each panelboard.
3. Fuses for Fused Switches: Equal to 10 percent of quantity installed for each size and type, but no fewer than three of each size and type.
4. Fuses for Fused Power-Circuit Devices: Equal to 10 percent of quantity installed for each size and type, but no fewer than three of each size and type.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS FOR PANELBOARDS

A. Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Section "Vibration and Seismic Controls for Electrical Systems."

B. Enclosures: Flush- and surface-mounted cabinets.

1. Rated for environmental conditions at installed location.

a. Indoor Dry and Clean Locations: NEMA 250, Type 1.
b. Outdoor Locations: NEMA 250, Type 3R.
c. Kitchen Areas: NEMA 250, Type 4X,.
d. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
e. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 5.

2. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.
3. Skirt for Surface-Mounted Panelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
4. Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
5. Finishes:

a. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
b. Back Boxes: Galvanized steel.

6. Directory Card: Inside panelboard door, mounted in transparent card holder.

C. Incoming Mains Location: Top and bottom.

D. Phase, Neutral, and Ground Buses:

1. Material: Hard-drawn copper, 98 percent conductivity.
2. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
3. Isolated Ground Bus: Adequate for branch-circuit isolated ground conductors; insulated from box.
4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.
5. Split Bus: Vertical buses divided into individual vertical sections.

E. Conductor Connectors: Suitable for use with conductor material and sizes.

1. Material: Hard-drawn copper, 98 percent conductivity.
2. Main and Neutral Lugs: Compression type.
3. Ground Lugs and Bus-Configured Terminators: Compression type.
4. Feed-Through Lugs: Compression type, suitable for use with conductor material. Locate at opposite end of bus from incoming lugs or main device.

F. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals.

2.2 DISTRIBUTION PANELBOARDS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
2. Siemens Energy & Automation, Inc.
3. Square D; a brand of Schneider Electric.

B. Panelboards: NEMA PB 1, power and feeder distribution type.

C. Doors: Secured with vault-type latch with tumbler lock; keyed alike.

1. For doors more than 36 inches (914 mm) high, provide two latches, keyed alike.

D. Mains: Circuit breaker.

E. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes 125 A and Smaller: Plug-in circuit breakers.

F. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes Larger Than 125 A: Bolt-on circuit breakers; plug-in circuit breakers where individual positive-locking device requires mechanical release for removal.

G. Branch Overcurrent Protective Devices: Fused switches.

2.3 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
2. Siemens Energy & Automation, Inc.
3. Square D; a brand of Schneider Electric.

B. Panelboards: NEMA PB 1, lighting and appliance branch-circuit type.

C. Mains: Circuit breaker or lugs only.

D. Branch Overcurrent Protective Devices: Plug-in circuit breakers, replaceable without disturbing adjacent units.

2.4 ELECTRONIC-GRADE PANELBOARDS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
2. Siemens Energy & Automation, Inc.
3. Square D; a brand of Schneider Electric.

B. Panelboards: NEMA PB 1; with factory-installed, integral TVSS; labeled by an NRTL for compliance with UL 67 after installing TVSS.

C. Doors: Secured with vault-type latch with tumbler lock; keyed alike.

D. Main Overcurrent Protective Devices: Bolt-on thermal-magnetic circuit breakers.

E. Branch Overcurrent Protective Devices: Bolt-on thermal-magnetic circuit breakers.

F. Buses:

1. Copper phase and neutral buses; 200 percent capacity neutral bus and lugs.
2. Copper equipment and isolated ground buses.

2.5 ACCESSORY COMPONENTS AND FEATURES

A. Accessory Set: Include tools and miscellaneous items required for overcurrent protective device test, inspection, maintenance, and operation.

B. Portable Test Set: For testing functions of solid-state trip devices without removing from panelboard. Include relay and meter test plugs suitable for testing panelboard meters and switchboard class relays.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Receive, inspect, handle, and store panelboards according to NECA 407.

B. Examine panelboards before installation. Reject panelboards that are damaged or rusted or have been subjected to water saturation.

C. Examine elements and surfaces to receive panelboards for compliance with installation tolerances and other conditions affecting performance of the Work.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install panelboards and accessories according to NECA 407.

B. Equipment Mounting: Install panelboards on concrete bases, 4-inch (100-mm) nominal thickness. Comply with requirements for concrete base specified in Division 3 Section "Cast-in-Place Concrete."

1. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (450-mm) centers around full perimeter of base.
2. For panelboards, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete floor.
3. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

4. Install anchor bolts to elevations required for proper attachment to panelboards.
5. Attach panelboard to the vertical finished or structural surface behind the panelboard.

C. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from panelboards.

D. Comply with mounting and anchoring requirements specified in Division 16 Section "Vibration and Seismic Controls for Electrical Systems."

E. Mount top of trim 90 inches (2286 mm) above finished floor unless otherwise indicated.

F. Mount panelboard cabinet plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish and mating with back box.

G. Install overcurrent protective devices and controllers not already factory installed.

1. Set field-adjustable, circuit-breaker trip ranges.

H. Install filler plates in unused spaces.

I. Arrange conductors in gutters into groups and bundle and wrap with wire ties after completing load balancing.

J. Comply with NECA 1.

3.3 IDENTIFICATION

A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs complying with Division 16 Section "Electrical Identification."

B. Create a directory to indicate installed circuit loads after balancing panelboard loads; incorporate Owner's final room designations. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.

C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Division 16 Section"Electrical Identification."

D. Device Nameplates: Label each branch circuit device in distribution panelboards with a nameplate complying with requirements for identification specified in Division 16 Section "Electrical Identification."

3.4 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

C. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

D. Acceptance Testing Preparation:

1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
2. Test continuity of each circuit.

E. Tests and Inspections:

1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

F. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 ADJUSTING

A. Adjust moving parts and operable component to function smoothly, and lubricate as recommended by manufacturer.

B. Set field-adjustable circuit-breaker trip ranges as specified in Division 16 Section "Overcurrent Protective Device Coordination."

C. Load Balancing: After Substantial Completion, but not more than 60 days after Final Acceptance, measure load balancing and make circuit changes.

1. Measure as directed during period of normal system loading.
2. Perform load-balancing circuit changes outside normal occupancy/working schedule of the facility and at time directed. Avoid disrupting critical 24-hour services such as fax machines and on-line data processing, computing, transmitting, and receiving equipment.
3. After circuit changes, recheck loads during normal load period. Record all load readings before and after changes and submit test records.
4. Tolerance: Difference exceeding 20 percent between phase loads, within a panelboard, is not acceptable. Rebalance and recheck as necessary to meet this minimum requirement.

3.6 PROTECTION

A. Temporary Heating: Apply temporary heat to maintain temperature according to manufacturer's written instructions.

END OF SECTION 16442

SECTION 16491 - FUSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Cartridge fuses rated 600-V ac and less for use in enclosed switches.
2. Plug fuses rated 125-V ac and less for use in plug-fuse-type enclosed switches.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material, dimensions, descriptions of individual components, and finishes for spare-fuse cabinets. Include the following for each fuse type indicated:

1. Ambient Temperature Adjustment Information: If ratings of fuses have been adjusted to accommodate ambient temperatures, provide list of fuses with adjusted ratings.

a. For each fuse having adjusted ratings, include location of fuse, original fuse rating, local ambient temperature, and adjusted fuse rating.
b. Provide manufacturer's technical data on which ambient temperature adjustment calculations are based.

2. Dimensions and manufacturer's technical data on features, performance, electrical characteristics, and ratings.
3. Current-limitation curves for fuses with current-limiting characteristics.
4. Coordination charts and tables and related data.
5. Fuse sizes for elevator feeders and elevator disconnect switches.

B. Operation and Maintenance Data: For fuses to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 1 Section "Operation and Maintenance Data," include the following:

1. Ambient temperature adjustment information.
2. Current-limitation curves for fuses with current-limiting characteristics.
3. Coordination charts and tables and related data.

1.4 QUALITY ASSURANCE

A. Source Limitations: Obtain fuses, for use within a specific product or circuit, from single source from single manufacturer.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

C. Comply with NEMA FU 1 for cartridge fuses.

D. Comply with NFPA 70.

E. Comply with UL 248-11 for plug fuses.

1.5 PROJECT CONDITIONS

A. Where ambient temperature to which fuses are directly exposed is less than 40 deg F (5 deg C) or more than 100 deg F (38 deg C), apply manufacturer's ambient temperature adjustment factors to fuse ratings.

1.6 COORDINATION

A. Coordinate fuse ratings with utilization equipment nameplate limitations of maximum fuse size and with system short-circuit current levels.

1.7 EXTRA MATERIALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Fuses: Equal to 10 percent of quantity installed for each size and type, but no fewer than two of each size and type.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Cooper Bussmann, Inc.
2. Edison Fuse, Inc.
3. Ferraz Shawmut, Inc.
4. Littelfuse, Inc.

2.2 CARTRIDGE FUSES

A. Characteristics: NEMA FU 1, nonrenewable cartridge fuses with voltage ratings consistent with circuit voltages.

2.3 PLUG FUSES

A. Characteristics: UL 248-11, nonrenewable plug fuses; 125-V ac.

2.4 PLUG-FUSE ADAPTERS

A. Characteristics: Adapters for using Type S, rejection-base plug fuses in Edison-base fuseholders or sockets; ampere ratings matching fuse ratings; irremovable once installed.

2.5 SPARE-FUSE CABINET

A. Characteristics: Wall-mounted steel unit with full-length, recessed piano-hinged door and key-coded cam lock and pull.

1. Size: Adequate for storage of spare fuses specified with 15 percent spare capacity minimum.
2. Finish: Gray, baked enamel.
3. Identification: "SPARE FUSES" in 1-1/2-inch- (38-mm-) high letters on exterior of door.
4. Fuse Pullers: For each size of fuse, where applicable and available, from fuse manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine fuses before installation. Reject fuses that are moisture damaged or physically damaged.

B. Examine holders to receive fuses for compliance with installation tolerances and other conditions affecting performance, such as rejection features.

C. Examine utilization equipment nameplates and installation instructions. Install fuses of sizes and with characteristics appropriate for each piece of equipment.

D. Evaluate ambient temperatures to determine if fuse rating adjustment factors must be applied to fuse ratings.

E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FUSE APPLICATIONS

A. Cartridge Fuses:

1. Service Entrance: Class L, time delay.
2. Feeders: Class L, time delay.
3. Motor Branch Circuits: Class RK1, time delay.
4. Other Branch Circuits: Class RK1, time delay.
5. Control Circuits: Class CC, fast acting.

3.3 INSTALLATION

A. Install fuses in fusible devices. Arrange fuses so rating information is readable without removing fuse.

B. Install plug-fuse adapters in Edison-base fuseholders and sockets. Ensure that adapters are irremovable once installed.

C. Install spare-fuse cabinet(s).

3.4 IDENTIFICATION

A. Install labels complying with requirements for identification specified in Division 16 Section "Electrical Identification" and indicating fuse replacement information on inside door of each fused switch and adjacent to each fuse block, socket, and holder.

END OF SECTION 16491

SECTION 16511 - INTERIOR LIGHTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Interior lighting fixtures, lamps, and ballasts.
2. Emergency lighting units.
3. Exit signs.
4. Lighting fixture supports.
5. Retrofit kits for fluorescent lighting fixtures.

B. Related Sections include the following:

1. Division 13 Section "Lighting Controls" for manual or programmable control systems with low-voltage control wiring or data communication circuits.
2. Division 16 Section "Wiring Devices" for manual wall-box dimmers for incandescent lamps.
3. Division 16 Section "Lighting Control Devices" for automatic control of lighting, including time switches, photoelectric relays, occupancy sensors, and multipole lighting relays and contactors.
4. Division 16 Section "Stage Lighting" for theatrical lighting fixtures and their controls.
5. Division 16 Section "Dimming Controls" for architectural dimming systems.

1.3 DEFINITIONS

A. BF: Ballast factor.

B. CRI: Color-rendering index.

C. CU: Coefficient of utilization.

D. HID: High-intensity discharge.

E. LER: Luminaire efficacy rating.

F. Luminaire: Complete lighting fixture, including ballast housing if provided.

G. RCR: Room cavity ratio.

1.4 SUBMITTALS

A. Product Data: For each type of lighting fixture, arranged in order of fixture designation. Include data on features, accessories, finishes, and the following:

1. Physical description of lighting fixture including dimensions.
2. Emergency lighting units including battery and charger.
3. Ballast.
4. Energy-efficiency data.
5. Air and Thermal Performance Data: For air-handling lighting fixtures. Furnish data required in "Submittals" Article in Division 15 Section "Diffusers, Registers, and Grilles."
6. Sound Performance Data: For air-handling lighting fixtures. Indicate sound power level and sound transmission class in test reports certified according to standards specified in Division 15 Section "Diffusers, Registers, and Grilles."
7. Life, output, and energy-efficiency data for lamps.
8. Photometric data, in IESNA format, based on laboratory tests of each lighting fixture type, outfitted with lamps, ballasts, and accessories identical to those indicated for the lighting fixture as applied in this Project.

    a. For indicated fixtures, photometric data shall be certified by a qualified independent testing agency. Photometric data for remaining fixtures shall be certified by the manufacturer.
    b. Photometric data shall be certified by a manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP) for Energy Efficient Lighting Products.

B. Shop Drawings: Show details of nonstandard or custom lighting fixtures. Indicate dimensions, weights, methods of field assembly, components, features, and accessories.

1. Wiring Diagrams: Power and control wiring.

C. Coordination Drawings: Reflected ceiling plan(s) and other details, drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved:

1. Lighting fixtures.
2. Suspended ceiling components.
3. Structural members to which suspension systems for lighting fixtures will be attached.
4. Other items in finished ceiling including the following:

    a. Air outlets and inlets.
    b. Speakers.
    c. Sprinklers.
    d. Smoke and fire detectors.
    e. Access panels.

5. Perimeter moldings.

D. Samples for Verification: Interior lighting fixtures designated for sample submission in Interior Lighting Fixture Schedule. Each sample shall include the following:

1. Lamps: Specified units installed.
2. Accessories: Cords and plugs.

E. Product Certificates: For each type of ballast for bi-level and dimmer-controlled fixtures, signed by product manufacturer.

F. Qualification Data: For agencies providing photometric data for lighting fixtures.

G. Field quality-control test reports.

H. Operation and Maintenance Data: For lighting equipment and fixtures to include in emergency, operation, and maintenance manuals.

I. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.

B. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by an independent agency, with the experience and capability to conduct the testing indicated, that is an NRTL as defined by OSHA in 29 CFR 1910.7.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. Comply with NFPA 70.

E. FMG Compliance: Lighting fixtures for hazardous locations shall be listed and labeled for indicated class and division of hazard by FMG.

F. Mockups: Provide interior lighting fixtures for room or module mockups, complete with power and control connections.

1. Obtain Architect's approval of fixtures for mockups before starting installations.
2. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
3. Approved fixtures in mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 COORDINATION

A. Coordinate layout and installation of lighting fixtures and suspension system with other construction that penetrates ceilings or is supported by them, including HVAC equipment, fire-suppression system, and partition assemblies.

1.7 WARRANTY

A. Special Warranty for Emergency Lighting Batteries: Manufacturer's standard form in which manufacturer of battery-powered emergency lighting unit agrees to repair or replace components of rechargeable batteries that fail in materials or workmanship within specified warranty period.

1. Warranty Period for Emergency Lighting Unit Batteries: 10 years from date of Substantial Completion. Full warranty shall apply for first year, and prorated warranty for the remaining nine years.
2. Warranty Period for Emergency Fluorescent Ballast Batteries: Seven years from date of Substantial Completion. Full warranty shall apply for first year, and prorated warranty for the remaining six years.

B. Special Warranty for Ballasts: Manufacturer's standard form in which ballast manufacturer agrees to repair or replace ballasts that fail in materials or workmanship within specified warranty period.

1. Warranty Period for Electronic Ballasts: Five years from date of Substantial Completion.
2. Warranty Period for Electromagnetic Ballasts: Three years from date of Substantial Completion.

C. Special Warranty for T5 and T8 Fluorescent Lamps: Manufacturer's standard form, made out to Owner and signed by lamp manufacturer agreeing to replace lamps that fail in materials or workmanship, f.o.b. the nearest shipping point to Project site, within specified warranty period indicated below.

1. Warranty Period: One year(s) from date of Substantial Completion.

1.8 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Lamps: 10 for every 100 of each type and rating installed. Furnish at least one of each type.
2. Plastic Diffusers and Lenses: 1 for every 100 of each type and rating installed. Furnish at least one of each type.
3. Battery and Charger Data: One for each emergency lighting unit.
4. Ballasts: 1 for every 100 of each type and rating installed. Furnish at least one of each type.
5. Globes and Guards: 1 for every 20 of each type and rating installed. Furnish at least one of each type.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, provide product indicated on Drawings. Contractors wishing to submit alternate equipment shall submit to the specifying authority, at least 10 days prior to bid opening, the equipment proposed to provide a precise functional equivalent system to meet specifications.

2.2 LIGHTING FIXTURES AND COMPONENTS, GENERAL REQUIREMENTS

A. Recessed Fixtures: Comply with NEMA LE 4 for ceiling compatibility for recessed fixtures.

B. Incandescent Fixtures: Comply with UL 1598. Where LER is specified, test according to NEMA LE 5A.

C. Fluorescent Fixtures: Comply with UL 1598. Where LER is specified, test according to NEMA LE 5 and NEMA LE 5A as applicable.

D. HID Fixtures: Comply with UL 1598. Where LER is specified, test according to NEMA LE 5B.

E. Metal Parts: Free of burrs and sharp corners and edges.

F. Sheet Metal Components: Steel, unless otherwise indicated. Form and support to prevent warping and sagging.

G. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position.

H. Reflecting surfaces shall have minimum reflectance as follows, unless otherwise indicated:

1. White Surfaces: 85 percent.
2. Specular Surfaces: 83 percent.
3. Diffusing Specular Surfaces: 75 percent.
4. Laminated Silver Metallized Film: 90 percent.

I. Plastic Diffusers, Covers, and Globes:

1. Acrylic Lighting Diffusers: 100 percent virgin acrylic plastic. High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.

   a. Lens Thickness: At least 0.125 inch (3.175 mm) minimum unless different thickness is indicated.
   b. UV stabilized.

2. Glass: Annealed crystal glass, unless otherwise indicated.

J. Electromagnetic-Interference Filters: Factory installed to suppress conducted electromagnetic-interference as required by MIL-STD-461E. Fabricate lighting fixtures with one filter on each ballast indicated to require a filter.

2.3 BALLASTS FOR LINEAR FLUORESCENT LAMPS

A. Electronic Ballasts: Comply with ANSI C82.11; instant-start type, unless otherwise indicated, and designed for type and quantity of lamps served. Ballasts shall be designed for full light output unless dimmer or bi-level control is indicated.

1. Sound Rating: A.
2. Total Harmonic Distortion Rating: Less than 10 percent.
3. Transient Voltage Protection: IEEE C62.41, Category A or better.
4. Operating Frequency: 20 kHz or higher.
5. Lamp Current Crest Factor: 1.7 or less.
6. BF: 0.85 or higher.
7. Power Factor: 0.98 or higher.

8. Parallel Lamp Circuits: Multiple lamp ballasts shall comply with ANSI C 82.11 and shall be connected to maintain full light output on surviving lamps if one or more lamps fail.

B. Electronic Programmed-Start Ballasts for T5 and T5HO Lamps: Comply with ANSI C82.11 and the following:

1. Lamp end-of-life detection and shutdown circuit for T5 diameter lamps.
2. Automatic lamp starting after lamp replacement.
3. Sound Rating: A.
4. Total Harmonic Distortion Rating: Less than 20 percent.
5. Transient Voltage Protection: IEEE C62.41, Category A or better.
6. Operating Frequency: 20 kHz or higher.
7. Lamp Current Crest Factor: 1.7 or less.
8. BF: 0.95 or higher, unless otherwise indicated.
9. Power Factor: 0.98 or higher.

C. Electromagnetic Ballasts: Comply with ANSI C82.1; energy saving, high-power factor, Class P, and having automatic-reset thermal protection.

1. Ballast Manufacturer Certification: Indicated by label.

D. Single Ballasts for Multiple Lighting Fixtures: Factory-wired with ballast arrangements and bundled extension wiring to suit final installation conditions without modification or rewiring in the field.

2.4 BALLASTS FOR COMPACT FLUORESCENT LAMPS

A. Description: Electronic programmed rapid-start type, complying with ANSI C 82.11, designed for type and quantity of lamps indicated. Ballast shall be designed for full light output unless dimmer or bi-level control is indicated:

1. Lamp end-of-life detection and shutdown circuit.
2. Automatic lamp starting after lamp replacement.
3. Sound Rating: A.
4. Total Harmonic Distortion Rating: Less than 20 percent.
5. Transient Voltage Protection: IEEE C62.41, Category A or better.
6. Operating Frequency: 20 kHz or higher.
7. Lamp Current Crest Factor: 1.7 or less.
8. BF: 0.95 or higher, unless otherwise indicated.
9. Power Factor: 0.98 or higher.
10. Interference: Comply with 47 CFR, Chapter 1, Part 18, Subpart C, for limitations on electromagnetic and radio-frequency interference for nonconsumer equipment.
11. Ballast Case Temperature: 75 deg C, maximum.

B. Ballasts for Dimmer-Controlled Lighting Fixtures: Electronic type.

1. Dimming Range: 100 to 5 percent of rated lamp lumens.
2. Ballast Input Watts: Can be reduced to 20 percent of normal.
3. Compatibility: Certified by manufacturer for use with specific dimming control system and lamp type indicated.

2.5 EMERGENCY FLUORESCENT POWER UNIT

A. Internal Type: Self-contained, modular, battery-inverter unit, factory mounted within lighting fixture body and compatible with ballast. Comply with UL 924.

1. Emergency Connection: Operate 1 fluorescent lamp(s) continuously at an output of 1100 lumens each. Connect unswitched circuit to battery-inverter unit and switched circuit to fixture ballast.
2. Night-Light Connection: Operate one fluorescent lamp continuously.
3. Test Push Button and Indicator Light: Visible and accessible without opening fixture or entering ceiling space.

    a. Push Button: Push-to-test type, in unit housing, simulates loss of normal power and demonstrates unit operability.
    b. Indicator Light: LED indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.

4. Battery: Sealed, maintenance-free, nickel-cadmium type.
5. Charger: Fully automatic, solid-state, constant-current type with sealed power transfer relay.
6. Integral Self-Test: Factory-installed electronic device automatically initiates code-required test of unit emergency operation at required intervals. Test failure is annunciated by an integral audible alarm and flashing red LED.

B. External Type: Self-contained, modular, battery-inverter unit, suitable for powering one or more fluorescent lamps, remote mounted from lighting fixture. Comply with UL 924.

1. Emergency Connection: Operate one fluorescent lamp continuously. Connect unswitched circuit to battery-inverter unit and switched circuit to fixture ballast.
2. Night-Light Connection: Operate one fluorescent lamp in a remote fixture continuously.
3. Battery: Sealed, maintenance-free, nickel-cadmium type.
4. Charger: Fully automatic, solid-state, constant-current type.
5. Housing: NEMA 250, Type 1 enclosure.
6. Test Push Button: Push-to-test type, in unit housing, simulates loss of normal power and demonstrates unit operability.
7. LED Indicator Light: Indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.
8. Integral Self-Test: Factory-installed electronic device automatically initiates code-required test of unit emergency operation at required intervals. Test failure is annunciated by an integral audible alarm and flashing red LED.

2.6 BALLASTS FOR HID LAMPS

A. Electromagnetic Ballast for Metal-Halide Lamps: Comply with ANSI C82.4 and UL 1029. Include the following features, unless otherwise indicated:

1. Ballast Circuit: Constant-wattage autotransformer or regulating high-power-factor type.
2. Minimum Starting Temperature: Minus 22 deg F (Minus 30 deg C) for single-lamp ballasts.
3. Normal Ambient Operating Temperature: 104 deg F (40 deg C).
4. Open-circuit operation that will not reduce average life.
5. Low-Noise Ballasts: Manufacturers' standard epoxy-encapsulated models designed to minimize audible fixture noise.

B. Electronic Ballast for Metal-Halide Lamps: Include the following features unless otherwise indicated:

1. Lamp end-of-life detection and shutdown circuit.
2. Sound Rating: A.
3. Total Harmonic Distortion Rating: Less than 15 percent.
4. Transient Voltage Protection: IEEE C62.41, Category A or better.
5. Lamp Current Crest Factor: 1.5 or less.
6. Power Factor: .90 or higher.
7. Interference: Comply with 47 CFR, Chapter 1, Part 18, Subpart C, for limitations on electromagnetic and radio-frequency interference for nonconsumer equipment.
8. Protection: Class P thermal cutout.
9. Retain subparagraph and associated subparagraphs below for bi-level ballasts.

2.7 EXIT SIGNS

A. Description: Comply with UL 924; for sign colors, visibility, luminance, and lettering size, comply with authorities having jurisdiction.

B. Internally Lighted Signs:

1. Lamps for AC Operation: Fluorescent, 2 for each fixture, 20,000 hours of rated lamp life.
2. Lamps for AC Operation: LEDs, 70,000 hours minimum rated lamp life.
3. Self-Powered Exit Signs (Battery Type): Integral automatic charger in a self-contained power pack.

    a. Battery: Sealed, maintenance-free, nickel-cadmium type.
    b. Charger: Fully automatic, solid-state type with sealed transfer relay.
    c. Operation: Relay automatically energizes lamp from battery when circuit voltage drops to 80 percent of nominal voltage or below. When normal voltage is restored, relay disconnects lamps from battery, and battery is automatically recharged and floated on charger.
    d. Test Push Button: Push-to-test type, in unit housing, simulates loss of normal power and demonstrates unit operability.
    e. LED Indicator Light: Indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.
    f. Remote Test: Switch in hand-held remote device aimed in direction of tested unit initiates coded infrared signal. Signal reception by factory-installed infrared receiver in tested unit triggers simulation of loss of its normal power supply, providing visual confirmation of either proper or failed emergency response.
    g. Integral Self-Test: Factory-installed electronic device automatically initiates code-required test of unit emergency operation at required intervals. Test failure is annunciated by an integral audible alarm and flashing red LED.

4. Master/Remote Sign Configurations:

    a. Master Unit: Comply with requirements above for self-powered exit signs, and provide additional capacity in LED power supply for power connection to remote unit.
    b. Remote Unit: Comply with requirements above for self-powered exit signs, except omit power supply, battery and test features. Arrange to receive full power requirements from master unit. Connect for testing concurrently with master unit as a unified system.

2.8 FLUORESCENT LAMPS

A. Low-Mercury Lamps: Comply with EPA's toxicity characteristic leaching procedure test; shall yield less than 0.2 mg of mercury per liter when tested according to NEMA LL 1.

B. T8 rapid-start low-mercury lamps, rated 32 W maximum, nominal length of 48 inches (1220 mm), 2800 initial lumens (minimum), CRI 75 (minimum), color temperature 3500 K, and average rated life 20,000 hours, unless otherwise indicated.

C. T8 rapid-start low-mercury lamps, rated 17 W maximum, nominal length of 24 inches (610 mm), 1300 initial lumens (minimum), CRI 75 (minimum), color temperature 3500 K, and average rated life of 20,000 hours, unless otherwise indicated.

D. T5 rapid-start low-mercury lamps, rated 28 W maximum, nominal length of 45.2 inches (1150 mm), 2900 initial lumens (minimum), CRI 85 (minimum), color temperature 3000 K, and average rated life of 20,000 hours, unless otherwise indicated.

E. Compact Fluorescent Lamps: 4-Pin, low mercury, CRI 80 (minimum), color temperature 3500 K, average rated life of 10,000 hours at 3 hours operation per start, and suitable for use with dimming ballasts, unless otherwise indicated.

1. 13 W: T4, double or triple tube, rated 900 initial lumens (minimum).
2. 18 W: T4, double or triple tube, rated 1200 initial lumens (minimum).
3. 26 W: T4, double or triple tube, rated 1800 initial lumens (minimum).
4. 32 W: T4, triple tube, rated 2400 initial lumens (minimum).
5. 42 W: T4, triple tube, rated 3200 initial lumens (minimum).
6. 55 W: T4, triple tube, rated 4300 initial lumens (minimum).

2.9 HID LAMPS

A. High-Pressure Sodium Lamps: ANSI C78.42, CRI 21 (minimum), color temperature 1900 K, and average rated life of 24,000 hours, minimum.

1. Dual-Arc Tube Lamps: Arranged so only one of two arc tubes is lighted at one time and, when power is restored after an outage, the cooler arc tube, with lower internal pressure, lights instantly, providing an immediate 8 to 15 percent of normal light output.

B. Metal-Halide Lamps: ANSI C78.1372, with a minimum CRI 65, and color temperature 4000 K.

C. Pulse-Start, Metal-Halide Lamps: Minimum CRI 65, and color temperature 4000 K.

D. Ceramic, Pulse-Start, Metal-Halide Lamps: Minimum CRI 80, and color temperature 4000 K.

2.10 LIGHTING FIXTURE SUPPORT COMPONENTS

A. Comply with Division 16 Section "Electrical Supports and Seismic Restraints" for channel- and angle-iron supports and nonmetallic channel and angle supports.

B. Twin-Stem Hangers: Two, 1/2-inch (13-mm) steel tubes with single canopy designed to mount a single fixture. Finish same as fixture.

C. Wires: ASTM A 641/A 641M, Class 3, soft temper, zinc-coated steel, 12 gage (2.68 mm).

D. Wires for Humid Spaces: ASTM A 580/A 580M, Composition 302 or 304, annealed stainless steel, 12 gage (2.68 mm).

E. Rod Hangers: 3/16-inch (5-mm) minimum diameter, cadmium-plated, threaded steel rod.

F. Hook Hangers: Integrated assembly matched to fixture and line voltage and equipped with threaded attachment, cord, and locking-type plug.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Lighting fixtures: Set level, plumb, and square with ceilings and walls. Install lamps in each fixture.

B. Support for Lighting Fixtures in or on Grid-Type Suspended Ceilings: Use grid as a support element.

1. Install a minimum of four ceiling support system rods or wires for each fixture. Locate not more than 6 inches (150 mm) from lighting fixture corners.
2. Support Clips: Fasten to lighting fixtures and to ceiling grid members at or near each fixture corner with clips that are UL listed for the application.
3. Fixtures of Sizes Less Than Ceiling Grid: Install as indicated on reflected ceiling plans or center in acoustical panel, and support fixtures independently with at least two 3/4-inch (20-mm) metal channels spanning and secured to ceiling tees.
4. Install at least one independent support rod or wire from structure to a tab on lighting fixture. Wire or rod shall have breaking strength of the weight of fixture at a safety factor of 3.

C. Suspended Lighting Fixture Support:

1. Pendants and Rods: Where longer than 48 inches (1200 mm), brace to limit swinging.
2. Stem-Mounted, Single-Unit Fixtures: Suspend with twin-stem hangers.
3. Continuous Rows: Use tubing or stem for wiring at one point and tubing or rod for suspension for each unit length of fixture chassis, including one at each end.

D. Air-Handling Lighting Fixtures: Install with dampers closed and ready for adjustment.

E. Adjust aimable lighting fixtures to provide required light intensities.

F. Connect wiring according to Division 16 Section "Conductors and Cables."

3.2 FIELD QUALITY CONTROL

A. Test for Emergency Lighting: Interrupt power supply to demonstrate proper operation. Verify transfer from normal power to battery and retransfer to normal.

B. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.

END OF SECTION 16511

SECTION 31 05 13

SOILS FOR EARTHWORK

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Subsoil materials.
   2. Topsoil materials.

B. Related Sections:
   1. Section 310513 - Aggregates for Earthwork.
   2. Section 320516 - Aggregates for Exterior Improvements.
   3. Section 312213 - Rough Grading.
   4. Section 312323 - Backfill.
   5. Section 312317 - Trenching.

1.2 REFERENCES

A. American Association of State Highway and Transportation Officials:
   1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

B. ASTM International:
   1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).
   2. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (6,000 ft-lbf/ft3 (2,700 kN-m/m3)).
   3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

PART 2 PRODUCTS

2.1 SOURCE QUALITY CONTROL

A. Section 014000 - Quality Requirements: Testing and Inspection Services Testing and analysis of soil material.

B. Testing and Analysis of Subsoil Material:Perform in accordance with ASTM D698.

C. Testing and Analysis of Topsoil Material: Perform in accordance with ASTM D698.

D. When tests indicate materials do not meet specified requirements, change material and retest.

E. Furnish materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.1 EXCAVATION

A. Excavate subsoil and topsoil from areas designated. Strip topsoil to full depth of topsoil in designated areas.

B. Stockpile excavated material meeting requirements for subsoil materials and topsoil materials.

C. Remove excess excavated materials subsoil and topsoil not intended for reuse, from site.

D. Remove excavated materials not meeting requirements for subsoil materials and topsoil materials from site.

3.2 STOCKPILING

A. Stockpile materials on site at locations designated by Architect/Engineer.

B. Stockpile in sufficient quantities to meet Project schedule and requirements.

C. Separate differing materials with dividers or stockpile apart to prevent mixing.

D. Prevent intermixing of soil types or contamination.

E. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.

3.3 STOCKPILE CLEANUP

A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

SECTION 31 10 00

SITE CLEARING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Removing surface debris.
2. Removing designated trees, shrubs, and other plant life.
3. Removing abandoned utilities.
4. Excavating topsoil.

B. Related Sections:
1. Section 312213 - Rough Grading.
2. Section 312318 - Rock Removal.

PART 2 EXECUTION

2.1 EXAMINATION

A. Section 013000 - Administrative Requirements: Verification of existing conditions before starting work.

B. Verify existing plant life designated to remain is tagged or identified.

C. Identify waste area for placing removed materials.

2.2 PREPARATION

A. Call Local Utility Line Information not less than three working days before performing Work.
1. Request underground utilities to be located and marked within and surrounding construction areas.

2.3 PROTECTION

A. Locate, identify, and protect utilities indicated to remain, from damage.

B. Protect trees, plant growth, and features designated to remain, as final landscaping

C. Protect bench marks, survey control points, and existing structures from damage or displacement.

2.4 CLEARING

A. Clear areas required for access to site and execution of Work.

B. Remove trees and shrubs within marked areas. Remove stumps.

C. Clear undergrowth and deadwood, without disturbing subsoil.

D. Apply herbicide to remaining stumps to inhibit growth.

2.5 REMOVAL

A. Remove debris, rock, and extracted plant life from site.

B. Remove abandoned utilities. Indicated removal termination point for underground utilities on Record Documents.

C. Continuously clean-up and remove waste materials from site. Do not allow materials to accumulate on site.

D. Do not burn or bury materials on site. Leave site in clean condition.

2.6 TOPSOIL EXCAVATION

A. Excavate topsoil from areas to be further excavated, relandscaped, or regraded, without mixing with foreign materials for use in finish grading.

B. Do not excavate wet topsoil.

C. Stockpile in area designated on site to depth not exceeding 8 feet and protect from erosion.

D. Remove excess topsoil not intended for reuse, from site.

END OF SECTION

SECTION 31 22 13

ROUGH GRADING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Excavating topsoil.
2. Excavating subsoil.
3. Cutting, grading, filling, compacting site for site structures, building pads.

B. Related Sections:
1. Section 310513 - Soils for Earthwork: Soils for fill.
2. Section 310516 - Aggregates for Earthwork: Aggregates for fill.
3. Section 311000 - Site Clearing: Excavating topsoil.
4. Section 312316 - Excavation and Fill: Building excavation.
5. Section 312318 - Rock Removal.
6. Section 312323 - Backfill: General building area backfilling.
7. Section 312317 - Trenching: Trenching and backfilling for utilities.

1.2 REFERENCES

A. American Association of State Highway and Transportation Officials:
1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

B. ASTM International:
1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).
3. ASTM D1556 - Standard Test Method for Density of Soil in Place by the Sand-Cone Method.
4. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (6,000 ft-lbf/ft3 (2,700 kN-m/m3)).
5. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
6. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
7. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head).
8. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

9. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

PART 2 EXECUTION

2.1 PREPARATION

A. Call Local Utility Line Information service not less than three working days before performing Work.
   1. Request underground utilities to be located and marked within and surrounding construction areas.

B. Identify required lines, levels, contours, and datum.

C. Protect utilities indicated to remain from damage.

D. Protect bench marks, survey control point, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

2.2 FILLING

A. Fill areas to contours and elevations with unfrozen materials.

B. Place fill material in continuous layers and compact as required.

C. Maintain optimum moisture content of fill materials to attain required compaction density.

D. Slope grade away from building minimum 2 percent slope for minimum distance of 10 ft, unless noted otherwise.

E. Make grade changes gradual. Blend slope into level areas.

2.3 FIELD QUALITY CONTROL

A. Perform in place compaction tests in accordance with the following:
   1. As required by geotechnical engineer.

END OF SECTION

SECTION 31 23 16

EXCAVATION AND FILL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Soil densification.
2. Excavating for building foundations.
3. Excavating for slabs-on-grade.
4. Excavating for site structures.

B. Related Sections:
1. Section 310513 - Soils for Earthwork: Stockpiling excavated materials.
2. Section 310516 - Aggregates for Earthwork: Stockpiling excavated materials.
3. Section 312213 - Rough Grading: Topsoil and subsoil removal from site surface.
4. Section 312318- Rock Removal: Removal of rock during excavating.
5. Section 312323- Backfill.
6. Section 312317 - Trenching: Excavating for utility trenches.

1.2 REFERENCES

A. ASTM International:
1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).
2. ASTM D1556 - Standard Test Method for Density of Soil in Place by the Sand-Cone Method.
3. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
4. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

B. Local utility standards when working within 24 inches of utility lines.

PART 2 EXECUTION

2.1 EXCAVATION

A. Underpin adjacent structures which may be damaged by excavation work.

B. Excavate subsoil to accommodate building foundations, slabs-on-grade.

C. Excavate to working elevation for piling work.

D. Compact disturbed load bearing soil in direct contact with foundations to original bearing capacity; perform compaction in accordance with Section 02320 and Section 02324.

E. Grade top perimeter of excavation to prevent surface water from draining into excavation.

F. Trim excavation. Remove loose matter.

G. Notify Architect/Engineer of unexpected subsurface conditions.

H. Correct areas over excavated with structural fill.

I. Remove excess and unsuitable material from site.

J. Repair or replace items indicated to remain damaged by excavation.

2.2 PROTECTION

A. Prevent displacement or loose soil from falling into excavation; maintain soil stability.

B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.

C. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

END OF SECTION

SECTION 31 31 16

TERMITE CONTROL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Soil treatment for termite control.

B. Related Sections:
   1. Section 310513 - Soils for Earthwork: Backfill materials.
   2. Section 312316 - Excavation and Fill: Subgrade preparation.
   3. Section 033000 - Cast-In-Place Concrete: Slabs on grade and foundations placed over treated soil.

1.2 REFERENCES

A. Environmental Protection Agency:
   1. EPA FIFRA - Federal Insecticide, Fungicide and Rodenticide Act.

B. National Pest Management Association:
   1. NPMA WDO - Wood Destroying Organism Library.

1.3 SUBMITTALS

A. Product Data: Submit toxicants to be used, composition by percentage, dilution schedule, intended application rate. Include product label information.

B. Test Reports: Indicate regulatory agency approval reports.

C. Manufacturer's Application Instructions: Indicate caution requirements and in accordance with current product label of chosen pesticide.

D. Certify applications followed NPMA WDO for termite control or other regional location guidance.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record moisture content of soil before application, date and rate of application, areas of application, diary of toxicity meter readings and corresponding soil coverage.

B. Operation and Maintenance Data: Indicate re-treatment schedule.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

B. Applicator: Company specializing in performing the Work of this sectionand licensed in State of Texas.

1.6 SEQUENCING

A. Section 011000 - Summary: Work sequence.

B. Apply toxicant immediately prior to installation of vapor barrier under slabs-on-grade in accordance with product label supplemented by the NPCA’s ARP for termiticiding or local requirements.

1.7 WARRANTY

A. Warranty: Include coverage for damage and repairs to building and building contents caused by termites. Repair damage. Re-treat where required.

PART 2 PRODUCTS

2.1 MATERIALS

A. Toxicant Chemical: EPA FIFRA approved; synthetically color dyed to permit visual identification of treated soil.

B. Diluent: Recommended by toxicant manufacturer.

2.2 MIXES

A. Mix toxicant to manufacturer's instructions.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 013000 - Administrative Requirements:Verification of existing conditions before starting work.

B. Verify soil surfaces are unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.

C. Verify final grading and excavation are complete.

3.2 APPLICATION

A. Apply toxicant at locations indicated in Schedule at end of section.

B. Apply extra treatment to structure penetration surfaces including pipe or ducts, and soil penetrations including grounding rods or posts.

C. Re-treat disturbed treated soil with same toxicant as original treatment.

D. When inspection or testing identifies presence of termites, re-treat soil and re-test.

3.3 PROTECTION OF FINISHED WORK

A. Section 017000 - Execution Requirements: Protecting finished Work.

B. Do not permit soil grading over treated work.

END OF SECTION

SECTION 321500

AGGREGATE SURFACING

PART 1 - GENERAL

1.01 SUMMARY

A. Furnish all labor, material, supervision and related services necessary or incidental to the installation of the Work as shown or indicated on the Drawings and/or as specified.
B. Section Includes:
   1. Aggregate Surfacing.
   2. Soil Barrier.
C. Related Sections:
   1. Drawings and General provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
D. This product forms part of the WORK to be completed in ALTERNATE NO. 2 for this project.

1.02 REFERENCES

A. ASTM International (ASTM) D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3)(600 kN-m/m3).

1.03 SUBMITTALS

A. Submittals for Review:
   1. Samples:
      a. 1-pint containers of proposed aggregate illustrating color, size, and gradation.
      b. 12x12 inch soil barrier samples.

1.04 QUALITY ASSURANCE

A. Furnish aggregate from single source throughout work.

1.05 DELIVERIES, STORAGE, AND HANDLING

A. Deliver and unload at the site in such a manner that no damage occurs to the product.
B. Store product in a manner that will preclude all damages. Cover product to protect from erosion.
C. Store products away from potential concentrated runoff areas.

1.06 PROJECT CONDITIONS

A. Do not place aggregate on soft, muddy, or frozen surfaces.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Aggregate: Refer to Materials Schedule in drawings. Typical 3/8”minus limestone, recycled concrete, or decomposed granite with fines.

2.02 ACCESSORIES

A. Soil Barrier: Geo-synthetic fabric manufactured specifically for control of weeds under paving or in landscape areas. Mirafi 135N or equal.
B. Herbicide: Non-selective type.

PART 3 – EXECUTION

3.01 PREPARATION

A. Inspect subgrade for correctness. The subgrade should be between 4”-6” below finish grade, free of debris, compacted to minimum 95 percent of ASTM D698 standard Proctor maximum dry density at or near optimum moisture content.
B. Correct minor irregularities in the subgrade gradient and elevation by scarifying and reshaping.
C. Apply herbicide in accordance with manufacturer’s instructions.

3.02 INSTALLATION

A. Place soil barrier over subgrade, install in accordance with manufacturer’s instructions.
B. Spread aggregate over subgrade in maximum 4 inch lifts to minimum compacted thickness indicated on Drawings.
C. Install flexible rubber perimeter edging per manufacturers instructions. Edging material is *FlexEdge* baseball divider, manufactured by SportsEdge, a division of ABT, Inc.
D. Level and contour surfaces to elevations and gradients indicated.
E. Roller and mechanical plate compact to a minimum of 90 percent relative density.
F. Tolerances
    1. Maximum variation from flat surface: ¼ inch in 10 feet.
    2. Maximum variation from thickness: ¼ inch.
    3. Maximum variation from elevation: ½ inch.

END OF SECTION

SECTION 321713

PARKING BUMPERS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Precast concrete parking bumpers and anchorage.

1.02 PRICE AND PAYMENT PROCEDURES

A. See Section 012200 - Unit Prices, for additional unit price requirements.

1.03 REFERENCE STANDARDS

A. ASTM A 615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2007.
B. ASTM C 33 - Standard Specification for Concrete Aggregates; 2007.
C. ASTM C 150 - Standard Specification for Portland Cement; 2007.
D. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete; 2006.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Parking Bumpers: Precast concrete, conforming to the following:
   1. Cement: ASTM C 150, Portland Type I - Normal; white color.
   2. Concrete Materials: ASTM C 33 aggregate, water, and sand.
   3. Reinforcing Steel: ASTM A 615/A 615M, deformed steel bars; unfinished finish, strength and size commensurate with precast unit design.
   4. Air Entrainment Admixture: ASTM C 260.
   5. Concrete Mix: Minimum 5000 psi, 28 day strength, air entrained to 5 to 7 percent.
   6. Use rigid molds, constructed to maintain precast units uniform in shape, size and finish. Maintain consistent quality during manufacture.
   7. Embed reinforcing steel, and drill or sleeve for two dowels.
   8. Cure units to develop concrete quality, and to minimize appearance blemishes such as non-uniformity, staining, or surface cracking.
   9. Minor patching in plant is acceptable, providing appearance of units is not impaired.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install units without damage to shape or finish. Replace or repair damaged units.
B. Install units in alignment with adjacent work.

END OF SECTION

SECTION 321723

PAVEMENT MARKINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Parking lot markings, including parking bays, crosswalks, arrows, handicapped symbols, and curb markings.
B. "No Parking" curb painting.

1.02 REFERENCE STANDARDS

A. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association; current edition, www.paintinfo.com.
B. FHWA MUTCD - Manual on Uniform Traffic Control Devices for Streets and Highways; U.S. Department of Transportation, Federal Highway Administration; http://mutcd.fhwa.dot.gov; current edition.

1.03 SUBMITTALS

A. See Section 013000 - SUBMITTAL PROCEDURES.
B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver paint in containers of at least 5 gallons accompanied by batch certificate.
B. Store products in manufacturer's unopened packaging until ready for installation.
C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.05 EXTRA MATERIALS

A. See Section 016000 - Product Requirements, for additional provisions.
B. Supply 2 containers of each color for OWNERS's use.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Line and Zone Marking Paint: MPI No. 97 Latex Traffic Marking Paint; color(s) as indicated.
   1. Parking Lots: Yellow.
   2. Handicapped Symbols: Blue.
B. Temporary Marking Tape: Preformed, reflective, pressure sensitive adhesive tape in color(s) required; is responsible for selection of material of sufficient durability as to perform satisfactorily during period for which its use is required.

PART 3 - EXECUTION

3.01 PREPARATION

A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
B. Clean surfaces thoroughly prior to installation.
   1. Remove dust, dirt, and other granular surface deposits by sweeping, blowing with compressed air, rinsing with water, or a combination of these methods.
C. Where oil or grease are present, scrub affected areas with several applications of trisodium phosphate solution or other approved detergent or degreaser, and rinse thoroughly after each application; after cleaning, seal oil-soaked areas with cut shellac to prevent bleeding through the new paint.
D. Establish survey control points to determine locations and dimensions of markings; provide templates to control paint application by type and color at necessary intervals.

3.02 INSTALLATION

A. Begin pavement marking as soon as practicable after surface has been cleaned and dried.
B. Do not apply paint if temperature of surface to be painted or the atmosphere is less than 50 degrees F or more than 95 degrees F.
C. Apply in accordance with manufacturer's instructions using an experienced technician that is thoroughly familiar with equipment, materials, and marking layouts.
D. Comply with FHWA MUTCD manual (http://mutcd.fhwa.dot.gov) for details not shown.
E. Apply markings in locations determined by measurement from survey control points; preserve control points until after markings have been accepted.
F. Apply uniformly painted markings of color(s), lengths, and widths as indicated on the drawings true, sharp edges and ends.
   1. Apply paint in one coat only.
   2. Wet Film Thickness: 0.015 inch, minimum.
   3. Length Tolerance: Plus or minus 3 inch.
   4. Width Tolerance: Plus or minus 1/8 inch.
G. Parking Lots: Apply parking space lines, entrance and exit arrows, painted curbs, and other markings indicated on drawings.
   1. Mark the International Handicapped Symbol at indicated parking spaces.
   2. Hand application by pneumatic spray is acceptable.
H. Symbols: Use a suitable template that will provide a pavement marking with true, sharp edges and ends, of the design and size indicated.

END OF SECTION

SECTION 321813

SYNTHETIC GRASS SURFACING

PART 1 - GENERAL

1.01 SUMMARY

A. Furnish all labor, material, supervision and related services necessary or incidental to the installation of the Work as shown or indicated on the Drawings and/or as specified.
B. Section Includes:
   1. Base Course.
   2. Synthetic Grass Surfacing.
C. This product forms part of the WORK to be completed in ALTERNATE NO. 2 for this project.

1.02 REFERENCES

A. ASTM International (ASTM) F1551-09 Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials.

1.03 SUBMITTALS

A. Submittals for Review:
   1. Product Data: Manufacturer's descriptive data sheet.
   2. Sample: 12"x12" synthetic grass sample.

1.04 DELIVERIES, STORAGE, AND HANDLING

A. Deliver and unload at the site in such a manner that no damage occurs to the product.
B. Store product in a manner that will preclude all damages and stains.
C. Cover product to protect from damage.
D. Store products away from potential concentrated runoff areas.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Synthetic Grass:

Product:	URBAN SPORT FOG
Code:	U-S-FOG
Pile Height:	2.0 Inch
Face Weight (Oz/SqYd):	40.9
Application:	SPORTS
Color:	FIELD/OLIVE GREEN
Manufacturer:	URBANTURF, TOM MASSEY AND ASSOCIATES (800) 820-4103, www.urbanturftexas.com

B. Sand Infill: Infill number 4 Blast Sand installed at 2 lbs/sqft.
C. Crumb Rubber Infill: Infill CRI at 1.5 lbs/sqft. CRI characteristics per ASTM-297.

2.02 ACCESSORIES

A. Seaming Tape: Type recommended by manufacturer.

PART 3 – EXECUTION

3.01 INSTALLATION – SYNTHETIC GRASS

A. Install in accordance with manufacturer's instructions.
B. Lay out synthetic grass so that the seams will be minimized and as inconspicuous as possible.
C. Verify match between adjacent materials before cutting to ensure minimal variation between dye lots.
D. Lay tight and flat on base course.
E. Join seams with seaming tape. Form seams straight and free of ridges or gaps.
F. Fit tight to abutting surfaces and penetrations without gaps. Mechanically fasten perimeter edges to edging with 1 inch galvanized nails at 6 inches on center.
G. Provide monolithic color, pattern, and texture within each area.
H. Apply sand/CRI infill uniformly over the completed grass using drop type spreader, to a maximum of 3.5 pounds per square foot.
I. Work infill into surface with medium bristle power broom and synthetic turf rake.
J. Perform final power broom to insure turf is upright and smooth.

END OF SECTION

SECTION 323113

CHAIN LINK FENCE

PART 1 – GENERAL

1.1 SECTION INCLUDES

A. Galvanized (zinc) coated chain link fabric with galvanized steel framework and accessories for commercial applications.

1.2 REFERENCES

A. ASTM A392 Standard Specification for Zinc-Coated Steel Chain-Link Fabric
B. ASTM A780 Standard Practice for Repair of Damaged and Uncoated Areas of Hot-dip Galvanized Coatings
C. ASTM F552 Standard Terminology Relating to Chain Link Fencing
D. ASTM F567 Standard Practice for Installation of Chain Link Fence
E. ASTM F626 Standard Specification for Fence Fittings
F. ASTM F1083 Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures
G. WLG2445 Chain Link Fence Manufacturers Institute, Chain Link Fence Wind Load Guide for the Selection of Line Posts and Line Post Spacing

1.3 SUBMITTALS

A. Changes in specifications may not be made after the bid date.
B. Shop drawings: Layout of fences and gates with dimensions, details, and finishes of components, accessories, and post foundations.
C. Product data: Manufacturer's catalog cuts indicating material compliance and specified options.
D. Samples: If requested, samples of materials (e.g., fabric, wires, and accessories).

1.4 QUALITY ASSURANCE

A. Manufacturer: Company having manufacturing facilities in the United States with a minimum 5 years experience specializing in manufacturing of chain link fence products.
B. Fence contractor: Contractor having 5 years experience installing similar projects in accordance with ASTM F567.
C. Tolerances: ASTM current specification and tolerances apply and supersede any conflicting tolerance.
D. Single source: To ensure system integrity obtain the chain link system, framework, fabric, fittings, gates and accessories from a single source.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Approved Manufacturer: Master Halco, Inc., 1-800-229-5615, www.masterhalco.com
B. Substitutions: Alternate chain link products may be acceptable by the architect as equal if approved in writing ten days prior to bidding provided that the items submitted meet the specifications contained in this document.

2.2 CHAIN LINK FENCE FABRIC

A. Galvanized (zinc) coated steel chain link fabric per ASTM A392
B. Size and Height: 60 in

2.3 STEEL FENCE FRAMEWORK

A. Steel pipe Type I: ASTM F1043 Group IA, ASTM F1083 standard weight schedule 40 hot-dip galvanized pipe having a zinc coating of 1.8 oz/ft² (550 g/m²) on the outside surface and 1.8 oz/ft² (550 g/m²) on the inside surface. Regular Grade: Minimum steel yield strength of 30,000 psi (205 MPa)
B. Pipe End and Corner Post : 4" OD
C. Pipe Line Post: 4" OD
D. Pipe Rail and Braces, 1.660 in. OD

2. 4 FITTINGS

A. Post caps: ASTM F626 galvanized pressed steel, malleable iron, or aluminum alloy weather tight closure cap for tubular posts. Provide one cap for each post.
B. Rail ends: Galvanized pressed steel per ASTM F626, for connection of rails to post using a brace band.
C. Wire ties: 9 gauge (0.148") (3.76 mm) galvanized steel wire for attachment of fabric to line posts and rails.
D. Brace and tension (stretcher bar) bands: ASTM F626 galvanized 12 gauge (0.105") (2.67mm) pressed steel by 3/4" (19mm) formed to a minimum 300 degree profile curvature for post attachment. Secure bands using minimum 5/16" (7.94 mm) galvanized carriage bolt and nut.
E. Tension (stretcher) bars: Galvanized steel one piece length equal to 2 inches (50 mm) less than full height of fabric with a minimum cross-section of 3/16" x 3/4" (4.76 mm x 19 mm) per ASTM F626. Provide tension (stretcher) bars where chain link fabric is secured to the terminal post.
F. Truss rod assembly: Galvanized steel minimum 5/16" (7.9mm) diameter truss rod with pressed steel tightener, in accordance with ASTM F626
G. Carriage bolts and nuts: Galvanized of commercial quality

2.5 POST SETTING MATERIALS

A. Concrete: Minimum 28 day compressive strength of 3,000 psi (20 MPa).
B. Drive Anchors: Galvanized ASTM A36 steel drive anchor angle blades, 1" x 1" x 30 "

PART 3 - EXECUTION

3. 1 SITE EXAMINATION

A. Ensure property lines and legal boundaries of work are clearly established.
B. Verify fence location with Plans.
C. Verify areas to receive fencing are completed to final grade.

3.2 CHAIN LINK FRAMEWORK INSTALLATION

A. Install chain link fence system in accordance with ASTM F567 and manufacturer's instructions.
B. Locate terminal post at each fence termination and change in horizontal or vertical direction of 30° or more.
C. Space line posts uniformly 8' on center, maximum 10' on center.
D. Concrete set posts: Excavate holes in firm, undisturbed or compacted soil. Holes shall have diameter 4 times greater than outside dimension of post, and depths approximately 6" (152 mm) deeper than post bottom. Excavate deeper as required for adequate support in soft and loose soils, and for posts with heavy lateral loads. Set post bottom 36" (914 mm) below surface when in firm, undisturbed soil. Place concrete around posts in a continuous pour. Trowel finish around post and slope to direct water away from posts.
E. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.

F. Bracing: Install horizontal brace and truss assembly at mid-height or above for fences 6' (1829 mm) and over at each fabric connection to the terminal post. The diagonal truss rod is installed at the point where the brace rail is attached to the terminal post and diagonally down to the bottom of the adjacent line post. Place the truss rod in tension by adjusting the turnbuckle.
G. Tension wire: Install tension wires so that it will be located 4" (101.6 m) up from bottom the fabric. If top rail is not specified, install the tension wire so that it will be located 4" (101.6 mm) down from the top of the fabric. Stretch and install tension wire before installing the chain link fabric and attach it to each post using wire ties.
H. Top rail: Install in lengths of 21' (6400 mm). Connect ends with sleeves forming a rigid connection, allow for expansion and contraction.
I. Bottom Rails: Install bottom rails between posts and attach to post using rail end or line rail clamps.

3.3 CHAIN LINK FABRIC INSTALLATION

A. Fabric: Install fabric on security side, pull fabric taut; thread the tension bar through fabric and attach to terminal posts with tension bands spaced maximum of 15" (381 mm) on center and attach so that fabric remains in tension after pulling force is released. Install fabric so that it is 2" (50 mm) +/- 1" (25 mm) above finish grade.
B. Secure fabric using wire ties to line posts at 15" (381 mm) on center and to rails and braces 24" (610 mm) on center, and to the tension wire using hog rings 24" (610 mm) on center. Tie wire shall be secured to the fabric by wrapping it two 360 degree turns around the chain link wire pickets. Cut off any excess wire and bend back so as not to protrude so as to avoid injury if a pedestrian may come in contact with the fence.

3.4 SITE CLEAN UP

A. Clean up area adjacent to fence line from debris and unused material created by fence installation.

END OF SECTION

SECTION 323119

DECORATIVE METAL FENCES AND GATES

PART 1 - GENERAL

1.1 WORK INCLUDED

A. The contractor shall provide all labor, materials and all necessary items for the installation of the ornamental aluminum fence system defined herein.

1.2 RELATED WORK

A. Section _ _ _ - Earthwork
B. Section _ _ _ - Concrete

1.3 SYSTEM DESCRIPTION

A. The manufacturer shall supply a total ornamental aluminum fencing system.
   1. Basis of Design: Ameristar Fence Products - Echelon Plus, Genesis Style, 4' tall. The system shall include all components (i.e., pickets, posts, rails, gates and hardware) required.

1. 4 QUALITY ASSURANCE

A. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and the materials specified.

1.5 REFERENCES

A. ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus.
B. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
C. ASTM D523 - Test Method for Specular Gloss.
D. ASTM D822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
E. ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
F. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
G. ASTM D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
H. ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.

1.6 SUBMITTALS

A. See Section 013300 - Administrative Requirements, for submittal procedures.
B. The manufacturer's submittal package shall be submitted prior to installation to confirm compliance with all requirements for materials specified in this section.

1. 7 PRODUCT HANDLING AND STORAGE

A. Upon receipt at the job site, all materials shall be checked to ensure that no damages occurred during shipping or handling.
B. Materials shall be stored in such a manner to ensure proper ventilation and drainage and to protect against damage, weather, vandalism and theft.

PART 2 - MATERIALS

2.1 MANUFACTURER

A. The ornamental fence system shall conform to Ameristar’s Echelon Plus aluminum ornamental fencing, Genesis, 3-rail style manufactured by Ameristar Fence Products, Inc. in Tulsa, Oklahoma.

B. Substitutions are permitted as long as product meets standards set forth in this specification.

2.2 MATERIAL

A. Aluminum material for fence framework (i.e., tubular pickets, rails and posts) shall conform to the requirements of ASTM B221.
B. The aluminum extrusions for posts and rails shall be Alloy and Temper Designation 6005-T52.
C. The aluminum extrusions for pickets shall be Alloy and Temper Designation 6063-T52.
D. Pickets shall be 3/4" square x .045" thick.
E. Horizontal rails shall be 1-1/4" x 1-7/16" Forerunner™ channel with .060" thick top & internal web wall, and .090" thick side walls and shall be punched to allow picket to pass through the top of the rail. The Forerunner rail shall be constructed with an internal web insert providing a raceway for the pickets to be retained with a 1/8" retaining rod. The number of rails shall vary with the style, height and strength as determined by manufacturer. Fence posts and gateposts shall meet the minimum size requirements of Table 1.
F. Accessories: Aluminum castings shall be used for all post caps, scrolls, finials, and other miscellaneous hardware. Hinges and latches shall be fabricated from aluminum, stainless steel or composite materials.

2.3 FABRICATION

A. Pickets, rails and posts shall be pre-cut to specified lengths. ForeRunner rails shall be pre-punched to accept pickets. Grommets shall be inserted into the pre-punched holes in the rails and pickets shall be inserted through the grommets so that pre-drilled picket holes align with the internal upper raceway of the ForeRunner rails (Note: This can best be accomplished by using an alignment template). Retaining rods shall be inserted into each ForeRunner rail so that they pass through the pre-drilled holes in each picket, thus completing the panel assembly.
B. The manufactured framework shall be subjected to the Ameristar thermal stratification coating process (high-temperature, in-line, multi-stage, and multi-layer) including, as a minimum, a six-stage pretreatment/wash and an electrostatic spray application of a polyester finish. The topcoat shall be a "no-mar" TGIC polyester powder coat finish with a minimum thickness of 2 mils (0.0508mm). The color shall be (specify Black, Bronze, or White). The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in Table 2.
C. Finish: All fence components shall be subject to a six-stage pretreatment/wash followed by an electrostatic spray application of a "no-mar" TGIC polyester powder coat finish with a minimum thickness of 2-4 mils. The color shall be (specify black, bronze or white).
D. Completed panels shall be capable of supporting a 200 lb. load (applied at midspan) without permanent deformation. Panels without rings shall be biasable to a 12.5% change in grade.
E. Swing gates shall be fabricated using 1-1/4" x 1-7/16" Forerunner rail, 1.75" sq. x .125" gate ends, and 3/4" sq. x .080 pickets. Gates that exceed 6' in width will have a 1.75" sq. x .125" intermediate upright. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined by welding.

PART 3 - EXECUTION

3.1 PREPARATION

A. All new installation shall be laid out by the contractor in accordance with the construction plans.

3.2 FENCE INSTALLATION

A. Fence post shall be spaced according to Table 3, plus or minus ½". For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. Fence panels shall be attached to posts with brackets supplied by the manufacturer. Posts shall be set in concrete footers 33" depth recommended
B. The "Earthwork" and "Concrete" sections of this specification shall govern material requirements for the concrete footer. Posts setting by other methods such as plated posts or grouted core-drilled footers are permissible only if shown by engineering analysis to be sufficient in strength for the intended application.

3.3 FENCE INSTALLATION MAINTENANCE

A. When cutting/drilling rails or posts adhere to the following steps to seal the exposed surfaces;
   1. Remove all metal shavings from cut area.
   2. Apply custom finish paint matching fence color.
   3. Failure to seal exposed surfaces per steps 1 & 2 above will negate warranty. Ameristar spray cans or paint pens shall be used to finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufactures' warranty.

3.4 GATE INSTALLATION

A. Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturers' gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacture of the gate and shall be installed per manufacturer's recommendations.

Table 1 – Minimum Sizes for Echelon Plus Posts

Fence Posts	Panel Height		
2-1/2" x 2-1/2" x .060" w/ reinforced web	Up to 6' Height		
Gate Leaf	Gate Height		
	Up to & Including 4'	Over 4' Up to & Including 5'	Over 5' Up to & Including 6'
Up to 4'	2 1/2" x 2-1/2" x .060" Alum.	3" x 3" x .120" Alum.	4" x 4" x .250" Alum. or 3" x 3" x 12ga. Steel
4'1" to 6'	3" x 3" x .120" Alum.	4" x 4" x .250" Alum. or 3" x 3" x 12ga. Steel	3" x 3" x 12ga. Steel
6'1" to 8'	4" x 4" x .250" Alum. or 3" x 3" x 12ga. Steel	4" x 4" x 11ga. Steel	4" x 4" x 11ga. Steel

Table 2 – Coating Performance Requirements

Quality Characteristics	ASTM Test Method	Performance Requirements
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117 & D1654	Corrosion Resistance over 1000 hours (Scribed per D1654; failure mode is accumulation of 1/8" coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625" ball).
Weathering Resistance	D822, D2244, D523 (60˚ Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

Table 3 – Echelon Plus – Post Spacing By Bracket Type

Span	8' Nominal (91-3/4" Rail)				
Post Size	2-1/2"	2-1/2"	3"	2-1/2"	3"
Bracket Type	Echelon Plus Line Boulevard (ABB3)	Echelon Plus Swivel* (ABB2)		Echelon Plus Flat Mount (ABB1)	
Post Settings ± 1/2" O.C.	95"	*95"	*95-1/2"	95"	95-1/2"
Span	6' Nominal (73-1/16" Rail)				
Post Size	2-1/2"	2-1/2"	3"	2-1/2"	3"
Bracket Type	Echelon Plus Line Boulevard (ABB3)	Echelon Plus Swivel* (ABB2)		Echelon Plus Flat Mount (ABB1)	
Post Settings ± 1/2" O.C.	76-1/4"	*76-1/4"	*76-3/4"	76-1/4"	76-3/4"
*Note: When using ABB2 swivel brackets on either or both ends of a panel installation, care must be taken to ensure the spacing between post and adjoining pickets meets applicable codes. This will require trimming one or both ends of the panel.					

END OF SECTION

DRAFT

AIA® Document A101™ – 2007

Standard Form of Agreement Between Owner and Contractor

where the basis of payment is a Stipulated Sum

AGREEMENT made as of the «--- » day of «--» in the year «--»
(In words, indicate day, month and year)

BETWEEN the Owner:
(Name, legal status, address and other information)

County of Hidalgo
2812 S. Business Hwy 281
Edinburg, Texas78539
and the Contractor:
(Name, legal status, address and other information)

for the following Project:
HIDALGO COUNTY PRECINCT NO. 2 - - PALMER PAVILION RENOVATION + LES GILMORE KITCHEN UPGRADES

The Architect:
(Name, legal status, address and other information)

-Sam Garcia Architect, LLC
-200 S. 10th Street
-Suite 1602McAllen, Texas 78501
Telephone No.: (956) -631-8327
-

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201™–2007, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions, if any), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.
(Insert the date of commencement if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)

« The date of commencement shall be the date specified in a notice to proceed to be given by Owner to Contractor.

If, prior to the commencement of the Work, the Owner requires time to file mortgages and other security interests, the Owner's time requirement shall be as follows:

« »
3.1.1 Liquidated Damages: Owner and Contractor recognize that time is of the essence in this Agreement and that Owner will suffer financial loss if the Work is not completed within the time specified in this Article 3, plus any extension thereof allowed in accordance with Article 8 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring such proof, Owner and Contractor agree that as liquidated damages for delay (but not as penalty) Contractor shall pay Owner -Two Hundred Fifty Dollars ($-250.00) for each day that expires after the time specified in this Article 3 for Substantial Completion until the work is substantially complete.

§ 3.2 The Contract Time shall be measured from the date of commencement.

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User Notes: (1515532406)

§ 3.3 The Contractor shall achieve Substantial Completion of the entire Work not later than «- days from the date of commencement, or as follows:
(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. If appropriate, insert requirements for earlier Substantial Completion of certain portions of the Work.)

« »

Portion of Work	Substantial Completion Date

, subject to adjustments of this Contract Time as provided in the Contract Documents.
(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)

See 3.1.1 above.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be -), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:
(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)

Alternate No. 1 -New Aluminum Perimeter Fencing; -

§ 4.3 Unit prices, if any:
(Identify and state the unit price; state quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price Per Unit ($ 0.00)

§ 4.4 Allowances included in the Contract Sum, if any:
(Identify allowance and state exclusions, if any, from the allowance price.)

Schedule of Allowance	
-Landscaping and Irrigation	$- 15,000.00
Construction Contingency Allowance	$- 25,000.00
- -	- -
TOTAL AMOUNT	$-40,000.00

4.5 Commitment of Current Revenues Only. In the event that, during any term hereof, the governing body of Owner does not appropriate sufficient funds to meet the obligations of such party under this Agreement, then Owner

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may terminate this Contract upon ninety (90) days written notice to Contractor. Each of the parties hereto agrees, however, to use its best efforts to secure funds necessary for the continued performance of this Contract. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of Owner pursuant to the provisions of Tex. Loc. Govt. Code Ann. §271.903.

ARTICLE 5 PAYMENTS

§ 5.1 PROGRESS PAYMENTS

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the **30th** day of a month, the Owner shall make payment of the certified amount to the Contractor not later than **the fifth day following approval by Commissioners Court.**
(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

.1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of Five Percent (5%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201™–2007, General Conditions of the Contract for Construction, **as modified by Owner and attached hereto as Exhibit C**;

.2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of Five Percent (5%) ;

.3 Subtract the aggregate of previous payments made by the Owner; and

.4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201–2007, **as modified by Owner and attached hereto as Exhibit "C"**;

§ 5.1.7 The progress payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:

.1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
(Section 9.8.5 of AIA Document A201–2007, as modified by the Owner, requires release of applicable retainage upon Substantial Completion of Work with consent of surety, if any.)

.2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201–2007, **as modified by Owner and attached hereto as Exhibit "C"**;

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§ 5.1.8 Reduction or limitation of retainage, if any, shall be as follows:
(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)

Not Applicable

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 FINAL PAYMENT

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

.1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201–2007,**as modified by Owner and attached hereto as Exhibit"C"**; and to satisfy other requirements, if any, which extend beyond final payment; and

.2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment **and upon acceptance by the Owner and Architect, and after satisfactory evidence has been given by the Contractor that all Contractor's bills have been paid and the entire project is free from liens.**

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 INITIAL DECISION MAKER

The Architect will serve as Initial Decision Maker pursuant to Section 15.2 of AIA Document A201–2007,**as modified by Owner and attached hereto as Exhibit "C",** unless the parties appoint below another individual, not a party to this Agreement, to serve as Initial Decision Maker.
(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

« »
« »
« »
« »

§ 6.2 BINDING DISPUTE RESOLUTION

For any Claim subject to, but not resolved by, mediation pursuant to Section 15.3 of AIA Document A201–2007,**as modified by Owner and attached hereto as Exhibit "C",** the method of binding dispute resolution shall be as follows:
(Check the appropriate box. If the Owner and Contractor do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.)

[« »] Arbitration pursuant to Section 15.4 of AIA Document A201–2007

[« X »] Litigation in a court of competent jurisdiction

[« »] Other *(Specify)*

« »

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ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2007, as modified by the Owner and attached hereto as Exhibit "C."

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2007, as modified by the Owner and attached hereto as Exhibit "C."

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2007, as modified by the Owner, or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.
(Insert rate of interest agreed upon, if any.)

The legal rate established by the Texas Government Code, currently Section 2251.025, as amended.

§ 8.3 The Owner's representative:
(Name, address and other information)

Hidalgo County Commissioners' Court
-100 E. C-ano
Edinburg, Texas 78539

§ 8.4 The Contractor's representative:
(Name, address and other information)

-
-

§ 8.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other party.

§ 8.6 Other provisions:

« »

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated in the sections below.

§ 9.1.1 The Agreement is this executed AIA Document A101–2007, Standard Form of Agreement Between Owner and Contractor.

§ 9.1.2 The General Conditions are AIA Document A201–2007, General Conditions of the Contract for Construction, **as modified by the Owner and attached hereto as Exhibit "C".**

§ 9.1.3 The Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
Not Applicable			

§ 9.1.4 The Specifications:
(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

« »

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Section	Title	Date	Pages

§ 9.1.5 The Drawings:
(Either list the Drawings here or refer to an exhibit attached to this Agreement.)
« »

Number	Title	Date

§ 9.1.6 The Addenda, if any:

Number	Date	Pages
-	-	-

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 9.

§ 9.1.7 Additional documents, if any, forming part of the Contract Documents:

.1 AIA Document E201™–2007Digital Data Protocol Exhibit, if completed by the parties, or the following:

« »

.2 Other documents, if any, listed below:
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201–2007 provides that bidding requirements such as advertisement or invitation to bid, Instructions to Bidders, sample forms and the Contractor's bid are not part of the Contract Documents unless enumerated in this Agreement. They should be listed here only if intended to be part of the Contract Documents.)

«
1. Exhibit 'A' Bid Form and Addendums
2. Exhibit 'B' Project Manual (Specifications) and Drawings
3. Exhibit 'C'AIA Document A201-2007, as modified by the Owner
4. Exhibit 'D' Notice to Proceed
5. Exhibit 'E' Certificate of Insurance
6. Exhibit 'F' Performance and Payment Bonds

ARTICLE 10 INSURANCE AND BONDS

The Contractor shall purchase and maintain insurance and provide bonds as set forth in Article 11 of AIA Document A201–2007, **as modified by Owner and attached hereto as Exhibit "C",**
*(State bonding requirements, if any, and limits of liability for insurance required in Article 11 of AIA Document A201–2007, **as modified by Owner and attached hereto as Exhibit "C"**).*

Type of insurance or bond	Limit of liability or bond amount ($ 0.00)

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This Agreement entered into as of the day and year first written above and is executed in three (3) original copies, of which one is to be delivered to the Contractor, one to the Architect for use in the administration of the Contract, and the remainder to the Owner.

HIDALGO COUNTY **-**

By:

OWNER*(Signature)*

Ramon Garcia, County Judge

(Printed name and title)

CONTRACTOR*(Signature)*

(Printed name and title)

APPROVED AS TO FORM: ATLAS, HALL & RODRIGUEZ, LLP

By:

(Signature)

Stephen L. Crain

(Printed name and title)

ATTEST:

(Signature)

Arturo Guajardo Jr., County Clerk

(Printed name and title)

DRAFT

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AIA® Document A201™ – 2007

General Conditions of the Contract for Construction

For the following PROJECT:
(Name and location or address)
Palmer Pavilion/Les Gilmore Kitchen Renovation and Upgrades

THE OWNER:
(Name, legal status and address)
County of Hidalgo
3100 South Business Highway 281, Suite D
Edinburg, Texas 78539

THE ARCHITECT:
(Name, legal status and address)
Sam Garcia Architects, LLC
Sam Garcia, AIA, Principal
200 S. 10th Street
Suite 1602
McAllen, Texas 78501
PH: (956) 212-4930

TABLE OF ARTICLES

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13 MISCELLANEOUS PROVISIONS

14 TERMINATION OR SUSPENSION OF THE CONTRACT

15 CLAIMS AND DISPUTES

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

§ 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect pursuant to Section 7.4. At the Owner's option, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding requirements.

§ 1.1.1.1 Contractor acknowledges and warrants that it has closely examined all the Contract Documents and is unaware of any instance where the documents are not suitable or are insufficient, to enable the Contractor to complete the Work in a timely manner for the Contract Sum, and that they include all Work, whether or not shown or described, which reasonably may be inferred or useful for the completion of the Work in full compliance with all applicable codes, laws, ordinances, and regulations.

§ 1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor except as provided in Sections 5.3 and 5.4 hereof, (3) between the Owner and the Architect or the Architect's consultants or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations of the Contractor under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.3.1 The Work shall include the obligation of the Contractor to visit the site of the project before submitting a proposal. Such site visit shall be for the purpose of familiarizing Contractor with the conditions as they exist and the character of the operations to be carried on under the Contract Documents, including all existing site conditions, access to the site, physical characteristics of the site and surrounding areas. It also includes all supplies, skill, supervision, transportation services and other facilities and things necessary, proper or incidental to the carrying out and completion of the terms of the Contract and all other items of cost or value needed to produce, construct and fully complete the public work identified by the Contract Documents.

§ 1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by separate contractors.

§ 1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams wherever located and whenever issued.

§ 1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

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§ 1.1.7 INSTRUMENTS OF SERVICE

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 INITIAL DECISION MAKER

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2.

§ 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. Any differences between the requirements of the Drawings and the Specifications or any differences noted within the Drawings themselves or within the Specifications themselves have been referred to Owner and Architect by Contractor prior to the submission of bids and have been clarified by an Addendum issued to all bidders.

If such differences or conflicts were not called to Owner's and Architect's attention prior to submission of bids, Architect shall decide which of the conflicting requirements will govern based upon the following: the most stringent of the requirements will take precedence over the less stringent; the most expensive item will take precedence over the less expensive, and subject to the approval of Owner, Contractor shall perform the Work at no additional cost and/or time to Owner in accordance with the Architect's decision. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferable as being necessary to produce the intended results.

§ 1.2.1.1 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

.1 The Agreement;
.2 Addenda, with those of later date having precedence over those of earlier date;
.3 Supplemental Conditions;
.4 The General Conditions of the Contract for Construction;
.5 Specifications;
.6 Drawings, and in the case of inconsistency between the Drawings and Specifications or within either document, not clarified by Addendum, the better quality or greater quantity of Work shall be included in the Contract Documents. Clarifications of the inconsistency will be accomplished with the Contractor and, if necessary, an appropriate reduction in the contract will be accomplished by Change Order. Figures given on drawings govern scale measurements. Large scale drawings take precedence over small sale drawings. Written words, take precedence over numbers. Handwritten documents take precedence over typewritten documents. Existing conditions take precedence over drawings and specifications for dimensions and shall be verified by the Contractor. The Contractor proceeds at his own risk if conflicts or discrepancies are not resolved prior to the execution of the Work.

§ 1.2.1.2 If Work is required in a manner to make it impossible to produce Work of the quality required by or reasonably inferred from the Contract Documents, or should discrepancies appear among the Contract Documents, Contractor shall request in writing an interpretation from Architect before proceeding with the Work. If Contractor fails to make such request, no excuse will thereafter be entertained for failure to carryout Work in the required manner or provide required guarantees, warranties, or bonds, and Contractor shall not be entitled to any change in the Contract Sum or the Contract Time on account of such failure.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

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§ 1.3 CAPITALIZATION
Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 INTERPRETATION
In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE
§ 1.5.1 Instruments of Service, including the Drawings, Specifications, and other similar or related documents and copies thereof are furnished to Contractor for the purpose of performing the Work and are, and shall remain, the property of Owner and Owner will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Owner or Owners' consultants reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.

§ 1.6 TRANSMISSION OF DATA IN DIGITAL FORM
If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2 OWNER
§ 2.1 GENERAL
§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Commissioners Court of Owner, by majority vote, is the only representative of Owner, having the power to enter into a Contract, to execute a change order requiring an increase in the Contract Sum, or agree to an extension of the contractual completion date. The Commissioners Court shall designate, as appropriate, an authorized representative(s) to act on its behalf during the course of construction. In the event that an emergency changes the scope of the Work before the next regular meeting or in order to facilitate and expedite the timely completion of the Work, the Commissioners Court's authorized representative(s) may approve construction changes that do not exceed $10,000.00 in increased costs. Any such changes shall be confirmed in writing between the Contractor and the Commissioner Court's authorized representative(s) and notice of such approved changes shall be given to the Commissioners Court at its next regular meeting. The Commissioners Court will act as soon as reasonably possible to avoid undue delays in the construction completion date.

§ 2.1.2 DELETED.

§ 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER
§ 2.2.1 Prior to commencement of the Work, the Contractor may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Contractor may only request such evidence if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) a change in the Work materially changes the Contract Sum; or (3) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements,

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assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.2.3 The Owner shall furnish surveys describing physical characteristics and utility locations, and legal limitations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work. In connection with the foregoing, Contractor shall be solely responsible for locating (and shall locate prior to performing any Work) all utilities lines, telephone company lines and cable, sewer lines, water pipes, gas lines, electrical lines, including without limitation, all buried pipelines and buried telephone cables an shall perform the Work in such a manner so as to avoid damaging any such lines, cables, pipes and pipelines. Under this provision the Architect and Engineer are in no way relieved of their responsibilities outlined in the Contract or other attached contracts for identification of existing conditions.

§ 2.2.4 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.2.5 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2 for use on this Project. All costs of reproduction are the responsibility of Contractor.

§ 2.3 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents or fails to remove and discharge (within ten (10) days) any lien filed upon Owner's or Landlord's property by anyone claiming by, through, or under Contractor or disregards the instructions of Architect or Owner when based on the requirements of the Contract Documents. The Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated. However, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3, and any delay resulting from such Work stoppage shall not extend any Milestone Date identified in the Contract for Construction or the required dates of Substantial or Final Completion.

§ 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

§ 2.4.1 The rights stated in Article 2 shall be in addition to and not in limitation of any other rights of Owner granted in the Contract Documents or at law or in equity.

ARTICLE 3 CONTRACTOR

§ 3.1 GENERAL

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

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§ 3.1.3 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect and Owner in writing any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for design information in such form as the Architect may require.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect and Owner in writing any nonconformity discovered by or made known to the Contractor as a request for design information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall make Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities unless the Contractor recognized or reasonably should have recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect and Owner.

§ 3.2.5 The Contractor shall not be entitled to additional compensation for the "rework portion" of any additional work caused by his failure to carefully study and compare the Contract Documents prior to execution of the Work.

§ 3.2.6 The Contractor shall make reasonable attempt to interpret the Contract Documents before asking the Architect for assistance in interpretation. The Contractor shall not ask the Architect for observation of work prior to the Contractor's field superintendent's personal inspection of the work and his determination that the work complies with the Contract Documents.

§ 3.2.7 If, in the opinion of the Architect, the Contractor does not make a reasonable effort to comply with the above requirements of the Contract Documents and this causes the Architect or Architect's consultants to expend an unreasonable amount of the time in the discharge of the duties imposed on him by the Contract Documents, then the Contractor shall bear the cost of compensation for the Architect's additional services made necessary by such failure. The Architect will give the Contractor prior notice of intent to bill for additional services related to Sections 3.2.6, 3.2.7, and 3.12 before additional services are performed.

§ 3.2.8 If the Contractor has knowledge that any of the products or systems specified will perform in a manner that will limit the Contractor's ability to satisfactorily perform the work or to honor the Contractor's Warranty, Contractor shall promptly notify the Architect in writing, providing substantiation for the position. Any necessary changes, including substitutions of materials, shall be accomplished by appropriate Modification.

§ 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques,

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sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.3.4 Contractor shall be responsible to Owner for acts and omissions of Contractor's employees, Subcontractors, and their agents and employees, and other persons performing portions of the Work under Contract Documents or other arrangements with Contractor.

§ 3.3.5 Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on the Work, including those with respect to the safety of persons and property and their protection from damages, injury, or loss. Contractor shall promptly remedy damage and loss to property at the site caused in whole or in part by Contractor, its Subcontractor, or anyone directly or indirectly employed by any of them or by anyone for whose acts they may be liable, except for damage or loss attributable solely to acts or omissions of Owner or Architect or by anyone for whose acts either of them may be liable and not attributable to the fault or negligence of Contractor, its Subcontractor, or anyone directly or indirectly employed by them. The foregoing obligations of Contractor are in addition to Contractor's obligations under other provisions hereunder.

§ 3.3.6 Contractor shall be responsible for inspection of portion of Work already performed under the Contract for Construction to determine that such portions are in proper condition to receive subsequent Work.

§ 3.3.7 Contractor has the responsibility to ensure that all material suppliers and Subcontractors, their agents, and employees adhere to the Contract Documents, and that they order materials on time, taking into account the current market and delivery conditions, and that they provide materials on time. Contractor shall coordinate its Work with that of all others on the Project, including of construction utilities.

§ 3.3.8 Contractor shall establish and maintain benchmarks and all other grades, lines, and levels necessary for the Work; report errors or inconsistencies to Owner and Architect before commencing Work; and, if applicable, review the placement of the buildings and permanent facilities on the site with Owner and Architect after all lines are staked out and before foundation Work is started. Contractor shall provide access to the Work for Owner, Architect, other persons designated by Owner, and governmental inspectors. Any encroachments made by Contractor or its Subcontractors on adjacent properties caused by construction as revealed by an improvements survey, except for encroachments arising from errors or omissions not reasonably discoverable by Contractor in the Contract Documents, shall be the sole responsibility of Contractor, and Contractor shall correct such encroachments within thirty (30) days of the improvement survey (or as soon thereafter as reasonably possible), at Contractor's sole cost and expense, either by the removal of the encroachment (and subsequent reconstruction on the Project site) or agreement with the adjacent property owner(s) (in form and substance satisfactory to Owner in its sole discretion) allowing the encroachments to remain.

§ 3.3.9 Contractor shall verify at the Work site the measurements indicated on the Drawings and Specifications and shall establish correctly the lines, levels, and positions for the Work and be responsible for their accuracy and proper correlation with control lines, monuments, and data, as established by surveys furnished by Owner. Work shall be erected square, plumb, level, true to line and grade, in the exact plane and to the correct elevation and/or sloped to drain as indicated. To ensure the proper execution of its subsequent Work, Contractor shall measure all Work already in place (including but not limited to utilities and grades installed or prepared by others) and shall at once report to Architect and Owner any discrepancy between said Work and the Drawings and Specifications for the Work.

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§ 3.3.10 Any discrepancy or omission in the dimensions or elections shown on the Drawings and Specifications or found in previous Work which may prevent accurate layout or construction of the Work, shall immediately be reported by Contractor to Owner and Architect. If Contractor performs, permits, or causes performance of any Work when Contractor knows or reasonably should have known that such discrepancy or omission exists, without first obtaining further instruction from Architect or Owner, Contractor shall bear any and all costs arising therefrom including, without limitation, the costs of correction thereof without increase or adjustment in the Contract Sum. Omissions from the Drawings or Specifications, or the misdescription of details of Work which are reasonably inferable in order to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve contractor from performing such omitted or mis-described details of the Work, and they shall be performed as if fully and correctly set forth and described in the Drawings and Specifications, at no additional cost to Owner.

§ 3.3.11 Contractor shall engage workers who are skilled in performing the Work, and all Work shall be performed with care and skill and in a good workmanlike manner under the full-time supervision of an approved engineer or foreman. Contractor shall be liable for all property damage, including repairs and replacements of the Work and economic losses, which proximately result from the breach of this duty. Contractor shall advise Architect:

1. if a specified product deviates from good construction practices;
2. if following the Specifications will affect any warranties; or
3. any objections which Contractor may have the Specifications.

Nothing contained in Subsection 1.1.3 shall alter the responsibilities established in this Subsection.

§ 3.4 LABOR AND MATERIALS

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work authorized by the Architect in accordance with Sections 3.12.8 or 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive. By making requests for substitutions based on Subsection 3.4.2, Contractor:

.1 represents that Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;
2. represents that Contractor will provide the same warranty for the substitution that Contractor would for that specified;
3. certifies that the cost data presented is complete and includes all related costs under this Contract except Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and
.4 will coordinate the installation for the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them. Contractor shall also be responsible for labor peace on the Project and shall at all times make its best efforts and judgments as an experienced Contractor to adopt and implement policies and practices designed to avoid Work stoppages, slowdowns, disputes, or strikes where reasonably possible and practical under the circumstances and shall at all times maintain Project-wide labor harmony. Except as specifically provided in Subsection 8.3 hereof, Contractor shall be liable to Owner for all damages suffered by Owner.

§ 3.4.4 Materials shall conform to manufacturer's standards in effect at the date of execution of the Agreement and shall be installed in strict accordance with manufacturer's directions. Contractor shall, if required by Owner or Architect, furnish satisfactory evidence as to the kind and quality of any materials. All packaged materials shall be shipped to the site in the original containers clearly labeled, and delivery slips shall be submitted with bulk materials identifying thereon the source, and warranting quality and compliance with Contract Documents.

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§ 3.4.5 When the Contract Documents require the Work, or any part of same, to be above the standards required by applicable laws, ordinances, rules and regulations, and other statutory provisions pertaining to the Work, such Work shall be performed and completed by Contractor in accordance with the Contract Documents.

§ 3.4.6 When the manufacturer's name, patent numbers, underwriter's labels, model numbers or similar identifying marks are required, such markings shall be located as inconspicuously as possible.

§ 3.5 WARRANTY

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of the best quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects. Work, materials, or equipment not conforming to these requirements may be considered defective. If required by the Architect or Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 ALL WARRANTIES SHALL INCLUDE LABOR AND MATERIALS AND THE MANUFACTURER'S WARRANTY SHALL BE SIGNED BY SUBCONTRACTOR AND COUNTERSIGNED BY CONTRACTOR. ALL WARRANTIES SHALL BE ADDRESSED TO OWNER AND DELIVERED TO ARCHITECT UPON COMPLETION OF THE WORK AND BEFORE OR WITH THE SUBMISSION OF REQUEST FOR FINAL PAYMENT.

§ 3.5.3 Contractor shall issue in writing to Owner as a condition precedent to final payment a "general warranty" reflecting the terms and conditions of this Section 3.5 for all Work under the Contract.

§ 3.5.4 The warranties provided in Section 3.5 shall be in addition to and not in limitation of any other warranty or remedy required by law or by the Contract Documents, and such warranty or remedy required by law or by the Contract Documents, and such warranty shall be interpreted to require Contractor to replace defective materials and equipment and re-execute defective Work which is disclosed to the Contractor by the Owner within a period of one (1) year after final completion of the entire Work unless a longer time is specifically called for in the specifications. The Contractor shall assign all components, equipment and fixture warranties to the Owner and will deliver all manuals to the Owner at the completion of construction.

§3.5.5 Except when a longer warranty time is specifically called for in the Specification Sections or is otherwise provided by law, the General Warranty shall be for twelve (12) months and shall be in form and content otherwise satisfactory to Owner.

§3.5.6 Warranties shall become effective on a date established by Owner and Architect in accordance with the Contract Documents. This date shall be the Date of Substantial Completion of the entire Work, unless otherwise provided in any Certificate of Partial Substantial Completion approved by the parties.

§3.5.7 If the Architect considers it impractical, because of unsuitable test conditions or some other factors, to execute simultaneous final acceptance of all equipment, portions of properly installed and functioning equipment may be certified by Architect for final acceptance, subject to Owner's approval, when that portion of the system is complete and ready for operation as called for under Subsection 9.8.1.

§3.5.8 Contractor shall warrant for a period of twelve (12) months that the building(s) shall be watertight and leak proof at every point and in every area, except where leaks can be attributed to damage to the building(s) by external forces beyond Contractor's control. Contractor shall, immediately upon notification by Owner of water penetration, determine the source of water penetration and, at its own expense, do any Work necessary to make the building(s) watertight. Contractor shall also, at its own expense, repair or replace any other damaged material, finishes, and furnishings, damaged as a result of this water penetration, to return the building(s) to its (their) original condition.

§3.5.9 In addition to the foregoing stipulations, Contractor shall comply with all other warranties referred to in any portions of the Contract Documents or otherwise provided by law or in equity, and where warranties overlap, the more stringent requirement shall govern.

§3.5.10 If for any reason Contractor cannot warrant any part of the Work using material or construction methods that

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have been specified, or shown, it shall notify Owner and Architect in writing before the Contract is signed, giving reasons, together with the name of product and data on a substitution it can warrant.

§ 3.6 TAXES

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall make application, secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract including, without limitation, street openings, sidewalk, and other obstructions, access over public ways and storage necessary for proper execution of the Contract and which are, legally required at the time bids are received or negotiations concluded.

§3.7.1.1 The Contractor shall also obtain all permits and approvals, and pay all fees and expenses, if any, associated with National Pollutant Discharge System (NPDS) regulations administered by the Environmental Protection Agency and state and local authorities, that require completion of documentation and/or acquisition of all permits for the Project. Contractor's obligations under this section do not require it to perform engineering services during the pre-construction phase to prepare proper drainage for the construction sites. However, any drainage alterations made by Contractor during construction phase which modifies the original site drainage plan and requires the issuance of a permit shall be at Contractor's sole cost.

a. The Owner shall pay directly to the governing authority the cost of all permanent property utility assessments and similar utility connection charges.

b. The Contractor shall be responsible for obtaining and paying for all City and County Building Permits, Inspection Fees and Plan Checking Fees; temporary utility charges, tap charges and water meter charges and any other similar fees assessed by jurisdictional authorities having control over the Project.

c. The Owner shall pay fees payable to the Texas Department of Licensing and Regulations (TDLR) for document review relative to the Elimination of Architectural Barriers Act and the Architect will submit the documents to the TDLR for review and approval.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders and all other requirements of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work (including, without limitation, the installation of any materials or equipment) that it knows or reasonably should have known would be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions. If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend to the Owner in writing, an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor in writing, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may proceed as provided in Article 15. No adjustment in the Contract Time or Contract Sum shall be

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permitted in connection with a concealed or unknown condition that does not differ materially from those conditions disclosed or based on data provided to Contractor and by the Contractor's prior inspections, tests, reviews, and pre-construction services for the Project; or by the Contractors inspections, tests, reviews and pre-construction services that Contractor had the opportunity and obligation to make in connection with the Project but did not do so.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect in writing. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 ALLOWANCES

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- **.1** allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- **.2** Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- **.3** whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness. If a decision is needed to avoid a delay, Contractor shall notify Architect, Construction manager and Owner in writing sufficiently in advance of needed date to allow reasonable time for selections to be made.

§ 3.9 SUPERINTENDENT

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the name and qualifications of a proposed superintendent. The Superintendent shall be satisfactory to the Owner and shall not be changed except with the consent of the Architect, unless the Superintendent leaves the employment of the Contractor. No increase in Contract Time or Contract Sum shall be allowed in the event the Owner or Architects object to any nominated superintendent. Such approval by the Owner shall not be unreasonably withheld.

§ 3.9.3 DELETED.

§ 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's review and approval a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised as required herein and at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work. The schedule shall indicate the proposed starting and completion dates for the various subdivisions of the Work as well as the totality of the Work. The schedule shall be updated every thirty (30) days and submitted to Architect with Contractor's Applications for Payment. Each schedule shall contain a comparison of actual progress with the estimated progress

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for such point in time stated in the original schedule. If any schedule submitted sets such a date for Substantial Completion for the Work or any phase of the Work beyond the date(s) of Substantial Completion established in the Contract (as the same may be extended as provided in the Contract Documents), then Contractor shall submit to Architect and Owner for their review and approval a narrative description of the means and methods that Contractor intends to employ to expedite the progress of the Work to ensure timely completion of the various phases of the Work as well as the totality of the Work. To ensure such timely completion, Contractor shall take all necessary action including, without limitation, increasing the number of personnel and labor on the Project and implementing overtime and double shifts. In that event, Contractor shall not be entitled to an adjustment in the Contract Sum or the schedule.

§ 3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect's and Owner's approval. The Architect's and Owner's approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.10.4 The process of approving Contractor's schedules and updates to Contractor's schedule shall not constitute a warranty by the Owner that any non-Contractor milestones or activities will occur as set out on Contractor's schedule. Approval of a Contractor's schedule does not constitute a commitment by the Owner to furnish any Owner-furnished information or material any earlier than Owner would otherwise be obligated to furnish that information or material under the Contract Documents. Failure of the Work to proceed in the sequence scheduled by Contractor shall not alone serve as the basis for a Claim for additional compensation or time. In the event there is interference with the Work, which is beyond its control, Contractor shall attempt to reschedule the Work in a manner that will hold resulting additional time and cost to a minimum. The construction schedule shall be in a detailed format satisfactory to the Owner and the Architect and shall also:

.1 Provide a graphic representation of all activities and events that will occur during performance of the Work;
.2 identify each phase of construction and occupancy; and
.3 set forth dates that are critical in ensuing the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents hereinafter referred to as Milestone Dates.

§ 3.10.5 The Owner shall have the right to reschedule the time of day for the performance of any part of the Work that may interfere with the operation of the Owner's premises or any tenants or invitees thereof. The Contractor shall, upon the Owner's request, reschedule any portion of the Work affecting operation of the premises during hours when the premises are not in operation. Any rescheduling of performance of the Work under this Subsection 3.10.5 may be grounds for an extension of the Contract Time, if permitted under Subsection 8.3.1 and an equitable adjustments in the Contract Sum, if: (1) the performance of the Work was properly scheduled by the Contractor in compliance with the requirements of the Contract Documents, (2) such rescheduling is required for the convenience of the Owner and is not attributable to any act of omission of Contractor, and (3) if Owner agrees to the Contract Sum adjustment prior to any rescheduling.

§ 3.11 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections (all changes and selections to be approved by Owner and Architect in advance) made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.11.1 At the Date of Substantial Completion and as a condition precedent to final payment, Contractor shall furnish the following documents to Architect for submittal to Owner: Record Drawings showing the field changes and selections (all changes and selections to be approved by Owner and Architect in advance) affecting the general

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construction, mechanical, electrical, plumbing, and all other Work, and indicating the Work as actually installed. These shall consist of carefully drawn markings on a set of reproducible prints of Architect's Drawings obtained and paid for by Contractor. Contractor shall maintain at the job site one (1) set of Architect's Drawings and indicate thereon each field change as it occurs. The Contractor shall post all Addenda on Construction Documents prior to commencing work on the site.

§ 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. If, in the opinion of the Architect, the Shop Drawings, Product Data, Samples and similar submittals are incomplete, indicate an inadequate understanding of the work covered by the submittals, or indicate a lack of study and review by the Contractor prior to submittal to the Architect, the submittals will be returned, unchecked, to the Contractor for correction of these three deficiencies and subsequent re-submittal. Additional service charges as outlined in Section 3.2.7 may be charged by the Architect in this event.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of

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the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional and who shall comply with requirements of Owner regarding qualifications and insurance and, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.12.11 The Contractor shall submit Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents to the Architect at least 30 days prior to the date the Contractor needs the reviewed submittals returned. Where colors are to be selected by the Architect, the Contractor shall submit all Samples in adequate time to allow the Architect to prepare a complete selection schedule. In general, all submittals requiring color selection shall be submitted to the Architect within four weeks of the date of the Contract for construction.

§3.12.12 The Contractor shall submit the number of copies of Shop Drawings, Product Data, Samples and similar submittals which the Contractor and his Subcontractors need for their use plus two additional sets for the Architect and one additional set for each of the Architect's consultants involved with the particular section of work. Where shop drawings are involved, the Contractor shall submit one high quality reproducible transparency and one opaque print of the shop drawing for the Architect plus one additional opaque print for each of the Architect's consultants involved with the particular section of work. The reproducible transparency will be marked by the Architect and/or his consultants and returned to the Contractor for his use, distribution, correction or re-submittal as required. The Architect and his consultants will retain the marked up prints. After final review and correction of the submittal, the Contractor shall send two corrected sets to the Architect, and one to each of the Architect's consultants involved with the particular section of work.

§ 3.13 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§3.13.1 Only materials and equipment which are to be used directly in the Work shall be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it shall be promptly removed from the Project site. Protection of construction materials and equipment stored at the Project site from weather, theft, damage and all other adversity is solely the responsibility of the Contractor.

§3.13.2 The Contractor and any entity for whom the Contractor is responsible shall not erect any sign on the Project site without written consent of the Owner.

§3.13.3 Contractor shall ensure that the Work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work shall be performed to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the Work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision on the Contract Documents, Contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of: (1) any area and buildings adjacent to the site or the Work or (2) the Building in the event of partial occupancy.

§3.13.4 Without prior approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project site, including without limitation, lavatories, toilets, entrance and parking areas other than

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those designated by Owner. Without limitation of any other provisions of the Contract Documents, the Contractor shall use its best efforts to comply with all rules and regulations promulgated by the Owner in connection with the use and occupancy of the Project site and the Building, as amended from time to time.

§ 3.14 CUTTING AND PATCHING

§ 3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

§ 3.15 CLEANING UP

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and Owner shall be entitled to reimbursement from the Contractor.

§ 3.15.3 Prior to the Architect's inspection for Submittal Completion the Contractor shall clean exterior and interior surfaces exposed to view; remove temporary labels, stains, and foreign substances; polish transparent and glossy surfaces; clean equipment and fixtures to a sanitary condition; replace air filters in mechanical equipment; clean roof, gutters and downspouts; remove obstructions and flush debris from drainage systems; clean site; sweep paved areas and rake clean other surfaces; remove trash and surplus materials from the site.

§ 3.16 ACCESS TO WORK

The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

§ 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

§ 3.18 INDEMNIFICATION

§ 3.18.1 To the fullest extent permitted by law, Contractor shall indemnify, defend, and hold harmless Owner, the Commissioners Court of Owner, all elected officials, employees and agents of Owner and of any of the above mentioned parties (the "Indemnified Parties") from and against any and all loss, cost, expense, damage, injury, liability, claim, demand, penalty, or cause of action (including attorneys' fees), directly or indirectly arising out of, resulting from, or related to (in whole or in part), (1) the Work performed hereunder, (2) the Contract, or (3) the act or omission of Contractor, a Subcontractor, or an individual, partnership, joint venture, corporation or other entity (a) directly or indirectly employed by Contractor or a Subcontractor, or (b) for whose acts or omissions Contractor or a Subcontractor may be liable (excluding property damage to the Work itself to the extent covered by Owner's all-risk builder's risk insurance, subject to Contractor's liability for any deductible amounts thereunder). The obligations of Contractor under this indemnification shall apply to all matters except those arising solely from the wanton and willful negligence or the malicious acts or omissions of Owner. Further, the obligations of Contractor

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under this indemnification shall not extend to the liability of Architect, its agents, or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs, or Specifications, (2) the giving of or failure to give directions or instructions by Architect, its agents, or employees, provided such giving or failure to give is the primary cause of the injury or damage, or (3) any matter prohibited by Section 130.002, Texas Civil Practice and Remedies Code. Contractor shall promptly advise Owner in writing of any action, administrative or legal proceeding , or investigation as to which this indemnification may apply, and Contractor, at Contractor's expense, shall assume on behalf of Owner and conduct with due diligence and in good faith the defense thereof with counsel satisfactory to Owner; provided, Owner shall have the right to be represented therein by advisory counsel of its own selection and at its own expense; and provided further, that if the defendants in any such action include both Contractor and Owner, and Owner shall have reasonably concluded that there may be legal defenses available to it or the other Indemnified Parties that are different from, or additional to, or inconsistent with, those available to Contractor, then Owner shall have the right to select separate counsel to participate in the defense of such action on its own and the other Indemnified Parties behalf at Contractor's expense. In the event of failure by Contractor to fully perform in accordance with this indemnification section. Owner, at its option, and without relieving Contractor of its obligations hereunder, may so perform, but all costs and expenses so incurred by Owner in that event shall be reimbursed by Contractor to Owner, together with interest on the same from the date any such expense was paid by Owner until reimbursed by Contractor, at the rate of interest provided to be paid on judgments, by the law of the jurisdiction to which the interpretation of the Contract is subject. The obligations of Contractor under this Section shall survive the expiration of the Contract and specifically shall survive the limitations contained in Subsection 15.1 hereof.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

§ 3.19 SUBSTITUTIONS OF PRODUCTS AND SYSTEMS, "OR EQUAL" BRANDS

§ 3.19.1 The materials, products and the systems covered by these specifications have been selected as a standard because of quality, particular suitability, or record of satisfactory performance. It is not intended to preclude the use of equivalent or better materials, products or systems provided that it meet the requirements of the particular project and have been approved in an addendum as a substitution prior to the submission of bids. If prior written approval in an addendum has not been obtained, it will be assumed that the Bid is based upon the materials, products, and systems described in the Bidding Documents and no substitutions will be permitted, except as provided hereinafter.

§3.19.2 If, after award of contract, the Contractor or one of his Subcontractors or Suppliers determines that any of the products or systems specified will perform in a manner that will limit the Contractor's ability to satisfactorily perform the work or to honor the Warranty, the Contractor shall promptly notify the Architect, in writing, providing detailed substantiation for his position. Any changes deemed necessary by the Owner and Architect, including substitution of materials and change in Contract Sum, either upward or downward, if any, shall be accompanied by appropriate modification.

§3.20 RECORD DRAWINGS

§3.20.1 At the completion of the project, the Contractor shall submit one complete set of blue lines showing all changes and routing of utilities made during construction, excluding Architect made CAD changes, to the Architect. Drafting shall be legible to the Architect's satisfaction. The Contractor shall pay for the cost of the required recording/drafting. The record set shall be kept up to date on a daily basis and the Architect shall review its status at the project meetings. The Architect shall furnish the Contractor with a blueline set at contract award which shall have all Addenda incorporated. The Owner will pay for the printing of the blueline set. The Architect will incorporate any record information into the construction (CAD) documents and provide the Owner with an electronic copy of the record information on the Construction documents that have all bid and construction changes incorporated. The cost for incorporating the record information into the CD will be paid for by the Owner. The Architect will transmit the electronic CD to the Owner with a copy of the transmittal to the Contractor's construction manager.

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ARTICLE 4 ARCHITECT

§ 4.1 GENERAL

§ 4.1.1 The Owner shall retain an architect lawfully licensed to practice architecture or an entity lawfully practicing architecture in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 4.1.2 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

§ 4.1.3 If the employment of the Architect is terminated, the Owner shall employ a successor architect whose status under the Contract Documents shall be that of the former Architect.

§ 4.2 ADMINISTRATION OF THE CONTRACT

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate For Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect as a representative of the Owner, will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Architect will be required to make on-site inspections as necessary to keep the Owner informed of the progress of the Work and as necessary to guard the Owner against defects and deficiencies in the Work. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Section 3.3.1.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. Architect shall not have control over or charge of and shall not be responsible for safety precautions and programs in connection with the Work. Architect shall be responsible for promptly notifying Contractor of the failure of Contractor, Subcontractors or any other persons performing any of the Work, in failing to use proper construction means, methods, techniques, sequences, procedures, safety precautions and programs, but only to the extent Architect becomes aware of, or should, exercising due professional diligence, be aware of, same. Architect shall also promptly notify Owner in writing of the failure of any of the foregoing parties to carry out the Work in accordance with the Contract Documents.

§ 4.2.4 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority and responsibility to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the

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Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve or reject, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5 and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 DELETED.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 DEFINITIONS

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site or to otherwise furnish labor, material, or other services with respect to a portion of the Work. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site or to otherwise furnish labor, material, or other services with respect to a

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portion of the Work. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

§ 5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, but no later than 10 days prior to the submittal date for the Contractor's first Application for Payment, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to any such proposed person or entity or (2) that the Architect requires additional time for review. Failure of the Owner or Architect to reply within the 14 day period shall constitute notice of no reasonable objection. Failure of the Contractor to submit the subject names in a timely manner may delay processing of the Contractor's Application for Payment.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person or entity previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 SUBCONTRACTUAL RELATIONS

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.3.1 All subcontracts shall be in written form and shall specifically provide that Owner is an intended third-party beneficiary of the subcontract.

§ 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

.1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor in writing; and

.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

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§ 5.4.3 Upon such assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity.

§ 5.5 Contractor shall promptly notify Owner and Architect of any material defaults by any Sub-contractor. Notwithstanding any provision contained in Article 5 to the contrary, it is hereby acknowledged and agreed that Owner has in no way agreed, expressly or implicitly, nor will Owner agree, to allow any Sub-contractor or other materialman or workman employed by Contractor the right to obtain a personal judgment or to create a lien against Owner for the amount due from the Contractor.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights that apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

§ 6.2 MUTUAL RESPONSIBILITY

§ 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

§ 6.2.3 DELETED.

§ 6.2.4 The Contractor shall promptly remedy damage the Contractor causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 OWNER'S RIGHT TO CLEAN UP

If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

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ARTICLE 7 CHANGES IN THE WORK

§ 7.1 GENERAL

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be only based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect and is subject to the approval of Owner.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work. Except as permitted in Sections 7.3 and 9.7, a change in the Contract Sum or the Contract Time shall be accomplished only by Change Order. Accordingly, no course of conduct or dealings between the parties, nor express or implied acceptance of alterations or additions to the Work and no claim that Owner has been unjustly enriched by any alteration of or addition to the Work, whether or not there is, in fact, any unjust enrichment to the Work, shall be the basis of any claim to an increase in any amounts due under the Contract Documents or a change in any time period provided for in the Contract Documents.

§ 7.2 CHANGE ORDERS

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor and Architect stating their agreement upon all of the following:

.1 The change in the Work;
.2 The amount of the adjustment, if any, in the Contract Sum; and
.3 The extent of the adjustment, if any, in the Contract Time.

§ 7.2.2 Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited, to all direct and indirect costs associated with such change and any and all adjustments to the Contract Sum and the construction schedule.

§7.2.3 Contractor shall keep and periodically submit to Owner copies of a log for all Change Orders.

§ 7.3 CONSTRUCTION CHANGE DIRECTIVES

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly. Contractor shall keep and periodically submit to Owner copies of a log for all Construction Change Directives and a log for all requests for information.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
.2 Unit prices stated in the Contract Documents or subsequently agreed upon;
.3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
.4 As provided in Section 7.3.7.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

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§ 7.3.5 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.6 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit not to exceed a total maximum of **fifteen** percent **(15%)** for all Work, and further limited to as follows, not to exceed five percent (5%) for Work done by Contractor's employees and **ten** percent **(10%)** of such Work's actual cost to be apportioned between any and all Subcontractors and Sub-subcontractor. "*Actual cost*" does not include any item that could be deemed to be a general conditions cost or overhead, such as, but not limited to, the cost of Contractor and Subcontractor supervisory personnel assigned to the Work, and field office and related expenses. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.7 shall be limited to the following:

.1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;

.2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;

.3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;

.4 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and

.5 Additional costs of supervision and field office personnel directly attributable to the change.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 MINOR CHANGES IN THE WORK

The Architect has authority after having obtained Owner's approval to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor.

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ARTICLE 8 TIME

§ 8.1 DEFINITIONS

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.1.1 The Work shall be fully completed within the time limit and/or date stated in the Contract between Owner and Contractor.

§ 8.1.1.2 Liquidated Damages: If the Contractor should fail to fully complete the Work within the stated time (subject however to extension of time duly granted in the manner and for the causes specified in the General Conditions), Contractor shall be charged by and shall pay to Owner, as liquidated damages, the sum specified in Section 3.1.1 of the modified AIA Document A101 – 2007, Standard Form of Agreement Between Owner and Contractor, to which this AIA Document A201-2007, General Conditions of the Contract for Construction, is attached as Exhibit "C", per calendar day that the Work remains incomplete beyond the time fixed for completion. Contractor hereby agrees that from the nature of the project it would be impracticable and extremely difficult to fix the actual damage that would or will be suffered in the event that Contractor should fail to fully complete the Work by the time limit or date stated and the amount of the liquidated damages are fair and reasonable. The parties agree that the liquidated damages are a reasonable forecast of just compensation for the harm done to Owner that would be caused by Contractor's failure to timely complete the Work. Contractor agrees that the amount of liquidated damages due Owner may be deducted by Owner from any monies that might otherwise be or become payable to Contractor.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 PROGRESS AND COMPLETION

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 DELAYS AND EXTENSIONS OF TIME

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the Owner pending mediation, provided, however, that such extension of Contract Time shall be net of any delays caused by or due to the fault or negligence of Contractor or that are otherwise the responsibility of Contractor and shall also be net of any contingency or "float" time allowance included in Contractor's construction schedule. Contractor shall, in the event of any occurrence likely to cause a delay, cooperate in good faith with Architect and Owner to minimize and mitigate the impact of any such occurrence and do all things reasonable under the circumstances to achieve this goal; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents. Contactor shall not be entitled to damages of any type for delays caused by Owner, his

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servant, agents, employees, or separate Contractors hired or retained by Owner. Contractor may receive an extension or extensions for additional time in which to complete the Contract but shall not receive any damages of any type for such delays. Changes in the Work, regardless of the extent or number of such Changes or Owner's exercise of any of its remedies of suspension of the Work or requirement of correction or re-execution of any defective Work, shall not under any circumstances be construed as intentional interference with Contractor's performance of the Work.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 CONTRACT SUM

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.1 Commitment of Current Revenues Only. As provided in Section 4.5 of the modified AIA Document A101 – 2007, Standard Form of Agreement Between Owner and Contractor, to which this AIA Document A201-2007, General Conditions of the Contract for Construction, is attached as Exhibit "C", in the event that, during any term hereof, the governing body of the Owner does not appropriate sufficient funds to meet the obligations of the Owner under this Contract, then the Owner may terminate this Contract upon ninety (90) days written notice to the other party. Each of the parties hereto agrees, however, to use its best efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of the Owner pursuant to the provisions of Tex. Loc. Govt. Code Ann. §271.903.

§ 9.2 SCHEDULE OF VALUES

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit to the Owner and to the Architect, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work which in the aggregate equals the total Contract Sum, divided so as to facilitate payments to Subcontractors, supported by such evidence of correctness as Architect may direct or as required by Owner. This schedule, when approved by Architect and Owner, shall be used to monitor the progress of the Work and as a basis for Certificates for Payment. All items with entered values will be transferred by Contractor to the "Application and Certificate for Payment," and shall include the latest approved Change Orders and Construction Change Directives. Change Order values and Construction Change Directives values shall be broken down to show the various subcontracts. The Application for Payment shall be on a form as provided by Architect and approved by Owner. Each item shall show its total scheduled value, value of previous applications, value of the application, percentage completed, value completed, and value yet to be completed. All blanks and columns must be filled in, including every percentage complete figure. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 9.3 APPLICATIONS FOR PAYMENT

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values for completed portions of the Work. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage if provided for in the Contract Documents. Any allowances included in the Application for Payment shall be separately itemized with supporting data attached. The Application for Payment shall be accompanied by a certification by an officer of Contractor to the effect that:

> There are no known mechanics', materialman's or laborers' liens or claims, or any other liens or claims, legal or equitable, contractual, statutory, or constitutional, outstanding or known to exist at the date of this Application; all due and payable bills with respect to the Work have been paid to date or are included in the amount requested in the current Application and there is no known basis for the filing of any mechanics', materialman's or laborers' lien or claim, or any other lien or claim, legal or equitable, contractual, statutory, or constitutional, on the Work; and waivers and releases from all Subcontractors, laborers, and material men for Work done and materials furnished have been obtained in such form as to constitute an effective waiver and release of all such liens and claims under the laws of the state within which the Project is located and shall be delivered to Architect together with Contractor's waiver and release of liens and claims at the time of submission of the Application for Payment.

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§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing by the Owner and Surety. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site. Under no circumstances will the Owner reimburse the Contractor for down payments, deposits, or other advance payments for materials or equipment.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work. The vesting of such title shall not impose any obligations on Owner or relieve Contractor of any of its obligations under the Contract, that Contractor shall remain responsible for damage to or loss of the Work, whether completed or under construction, until responsibility for the Work has been accepted by Owner in the manner set forth in the Contract Documents.

§ 9.4 CERTIFICATES FOR PAYMENT

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and on all other information available to Architect including, without limitation, the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified and that the aggregate amount theretofore paid to Contractor plus any applicable retention does not exceed the value of the completed portion of the Work. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, or (3) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 DECISIONS TO WITHHOLD CERTIFICATION

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to

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such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

.1 defective Work not remedied;
.2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
.3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
.4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
.5 damage to the Owner or a separate contractor;
.6 reasonable evidence that the Work will not be completed within the Contract Time, or that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
.7 failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.3 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Architect will reflect such payment on the next Certificate for Payment.

§ 9.5.4 Notwithstanding any provision contained within this Article, if the Work has not attained Substantial Completion within the Contract Time, subject to extensions of time allowed under these Conditions, Architect may withhold any further payment to Contractor to the extent necessary to preserve sufficient funds to complete the construction of the Project and to cover liquidated damages assessed against Contractor up to the time of the Application for Payment and to the time it is reasonably anticipated that Substantial Completion will be achieved.

§ 9.6 PROGRESS PAYMENTS

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect. Owner may refuse to make payment on any Certificate for Payment for any default of the Contract, including, but not limited to, those defaults set forth in Clauses 9.5.1.1 through 9.5.1.7. Owner shall not be deemed in default by reason of withholding payment while any of such defaults remain uncured.

§ 9.6.2 The Contractor shall pay each Subcontractor no later than seven days after receipt of payment from the Owner the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor.

§ 9.6.5 Contractor payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

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§ 9.6.7 DELETED.

§ 9.7 FAILURE OF PAYMENT

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not, for reasons other than a default of the Contract, including, but not limited to, those defaults set forth in Sections 9.5.1.1 through 9.5.1.7 pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Architect , then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.7.1 If Owner is entitled to reimbursement or payment from Contractor under or pursuant to the Contract Documents, such payment shall be made promptly upon demand by Owner. Notwithstanding anything contained in the Contract Documents to the contrary, if Contractor fails to promptly make any payment due Owner, or if Owner incurs any costs and expenses to cure any default of Contractor or to correct defective Work, Owner shall have an absolute right to offset such amount against the Contract Sum and may, in Owner's sole discretion, elect either to (i) deduct an amount equal to that which Owner is entitled from any payment then or thereafter due Contractor from Owner, or (ii) issue a written notice to Contractor reducing the Contract Sum by an amount equal to that which Owner is entitled.

§ 9.8 SUBSTANTIAL COMPLETION

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof (which Owner agrees to accept separately) is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of issuance of the certificate of final payment by Architect unless otherwise provided in the Certificate of Substantial Completion. The Work will not be considered suitable for Substantial Completion review until all Project systems included in the Work are operational as designed and scheduled, all designated or required governmental inspections and certifications have been made and posted, designated instruction of Owner's personnel in the operation of systems has been completed, and all final finishes within the Contract are in place. In general, the only remaining Work shall be minor in nature, so that Owner and/or Owner's employees and if applicable, the public, could occupy the building on that date and the completing of the Work by Contractor would not materially interfere or hamper Owner's or Owner's employees and if applicable, the public, (or those claiming by, through, or under Owner) from normal County operations. As a further condition of Substantial Completion acceptance, Contractor shall certify that all remaining Work will be completed within thirty (30) consecutive calendar days or as agreed upon following the Date of Substantial Completion. If Contractor requests a Substantial Completion review, and Architect, after performing the Substantial Completion review, finds that the Project was not ready for the Substantial Completion review, then Contractor shall pay the Architect's fees for any additional Substantial Completion reviews.

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§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§9.8.6 In order for the project or a major portion thereof to be considered substantially complete, the following conditions must be met: (1) All inspections by governmental authorities have jurisdiction over the project must have been finalized, any remedial work required by those authorities must have been completed, and Certificates of Occupancy and similar governmental approval forms must have been issued and copies delivered to the Owner and Architect. (2) All work, both interior and exterior, shall have been completed and cleaned except minor items which if completed after occupancy, will not, in the Owner's opinion, cause interference to the Owner's use of the building or any portion thereof. A significantly large number of items to be completed or corrected will preclude the Architect from issuing a Certificate of Substantial Completion. The Owner and Architect will be the sole judge of what constitutes a significantly large number of items.

§9.8.7 After the date of Substantial Completion of the Project, as evidenced by the Certificate of Substantial Completion, the Contractor will be allowed a period of thirty (30) days, unless extended by mutual agreement or provision of the Contract, within which to correct all deficiencies attached to the Certificate of Substantial Completion. Failure of the Contractor to complete such corrections within the stipulated time will be reported to the Contractor's surety. In this report, the Contactor and surety will be informed that, should correction remain incomplete for fifteen (15) days, the Owner may initiate action to complete corrective work out of the remaining Contract funds in accordance with Article 14.

§ 9.9 PARTIAL OCCUPANCY OR USE

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 FINAL COMPLETION AND FINAL PAYMENT

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the

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Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- **.1** liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- **.2** failure of the Work to comply with the requirements of the Contract Documents;
- **.3** terms of special warranties required by the Contract Documents; or
- **.4** faulty or defective Work appearing after Substantial Completion.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 SAFETY OF PERSONS AND PROPERTY

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- **.1** employees on the Work and other persons who may be affected thereby;
- **.2** the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- **.3** other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities. The Contractor shall also be responsible, at the Contractor's sole cost and expense, for all measures necessary to protect any property adjacent to the project and improvements therein. Any damage to such property or improvements shall be promptly repaired by the Contractor.

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§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3, except damage or loss attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 INJURY OR DAMAGE TO PERSON OR PROPERTY

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 HAZARDOUS MATERIALS

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing.

§ 10.3.2 Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up.

§ 10.3.3 DELETED.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents.

§ 10.3.5 The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

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§ 10.3.6 DELETED.

§ 10.4 EMERGENCIES

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 CONTRACTOR'S LIABILITY INSURANCE

§ 11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor and Owner from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

.1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;

.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;

.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;

.4 Claims for damages insured by usual personal injury liability coverage;

.5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

.6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;

.7 Claims for bodily injury or property damage arising out of completed operations; and

.8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

§ 11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

§ 11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ 11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect's Consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.

§ 11.1.5 SCHEDULE OF INSURANCE COVERAGES

§ 11.1.5.1 Contractor shall carry and keep in full force for the duration of the project the following Coverage.

Coverage	Minimum Amounts and Limits

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Worker's Compensation	Statutory Limits
Employer's Liability:	
Bodily Injury by Accident	$500,000.00/each accident
Bodily Injury by Disease	$500,000.00/each employee
Bodily Injury by Disease	$500,000.00/Policy Limit

Commercial General Liability

Bodily Injury/Property Damage	$1,000,000.00 per occurrence $2,000,000.00 aggregate

(Premises Operations, Independent Contractors, Product/Completed Operations, Personal Injury, Contractual Liability, Explosion, Collapse, Underground and Broad Form Property Damage).

Comprehensive Automobile Liability	$1,000,000.00 Combined Single Limit per Occurrence

Auto liability insurance shall be on a standard form written to cover all owned, hired, and non-owned automobiles. The policy shall be endorsed to include the Indemnified Parties (Section 3.18) as additional insured, contain cross-liability and severability of interest endorsements, and state that this insurance is primary insurance as regards to any other insurance carried by the Indemnified Parties (see Section 3.18).

§11.1.5.2 All policies shall contain special endorsements to include:

.1 The Owner as an additional insured (except for Worker's Compensation) and all other parties identified in 3.18 (Indemnified Parties);

.2 Wavier of Subrogation in favor of Owner under the Worker's Compensation and Employer's Liability policies.

.3. A statement that a notice shall be given to Owner by certified mail thirty (30) days prior to cancellation or upon any material changes in coverage.

4. Contain cross-liability and severability of interest endorsements;

5. state that this insurance is primary insurance in regard to any other insurance carried by the an Indemnified Party (see Section 3.18);

.6 the following coverage:

a. Premises/Operations;
b. Independent Contractors;
c. Completed Operations for a period of two years following the acceptance of Contractor's Work;
d. Comprehensive General Liability Endorsement to include Blanket Contractual Liability (specifically covering, but not limited to, the contractual obligations assumed by Contractor, Broad Form Property Damage, and Personal Injury Liability with employee and contractual exclusions removed;
e. Deletion of exclusions relative to Collapse, Explosion, and Underground Property Damage Hazards;
f. Personal Injury Liability with the contractual exclusions removed;
g. Cross Liability Endorsement.

§11.1.5.6 Umbrella Excess Liability Insurance

Bodily Injury and	$2,000,000.00 per occurrence
Property Damage	$2,000,000.00 aggregate

This policy shall be written on an umbrella excess basis above, the coverage described in this Article 11.

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The policy shall be endorsed to include the Indemnified Parties (3.18) as additional insureds. The policy shall contain cross-liability and severability of interest endorsements and shall state, as regard the Indemnified Parties that the insurance is primary insurance as to any other insurance carried by any Indemnified Party. The policy shall be endorsed to provide the defense coverage obligation.

§11.1.6 Further, Contractor shall require all Subcontractors to carry similar insurance coverage and limits of liability as required under this Article 11, adjusted to the nature of Subcontractor's operations and submit same to Owner for approval before any Work commences.

§11.1.7 In the event Contractor fails to obtain the required certificates of insurance from the Subcontractor and a claim is made or suffered, Contractor shall indemnify, defend, and hold harmless the indemnified parties from any and all claims for which the required insurance would have provided coverage.

§ 11.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

§ 11.2.1 By signing the Contract or providing or causing to be provided a Certificate of Coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that coverage will be based on proper reporting or classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

§11.2.2 Optionally, the Owner may require the Contractor to purchase and maintain Project Management Protective Liability insurance from the Contractor's usual sources as primary coverage for the Owner's, Contractor's and Architect's vicarious liability for construction operations under the contract. Unless otherwise required by the Contract Documents, the Owner shall reimburse the Contractor by increasing the Contract Sum to pay the cost of purchasing and maintaining such optional insurance coverage and the Contractor shall not be responsible for purchasing any other liability insurance on behalf of the Owner. The minimum limits of liability purchased with such coverage shall be equal to the aggregate of the limits required for Contractor's Liability Insurance under Article 11.

§ 11.3 PROPERTY INSURANCE

§ 11.3.1 Contractor shall obtain a builder's risk "all-risk" or equivalent policy in the amount of the initial Contract Sum (or, if applicable Guaranteed Maximum Price), plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. The policy must also name its subcontractors and the Owner as additional insured, as their respective interests may appear. Coverage shall include material stored on-site and in transit. Such insurance will be with a company or companies lawfully authorized to do business in Texas. The policy must have the following endorsement: "This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises."

§ 11.3.1.1 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

§ 11.3.1.1.1 For any claim made against Contractor's Builder's Risk Insurance, the deductible shall not exceed $2,500.00 for a Contract Sum of less than $4 million. For a Contract Sum of $4 million or more, the deductible shall not exceed $5,000.00.

§11.3.1.1.2 The Contractor waives all rights against (1) Owner, the Subcontractors, Sub-subcontractors, agents, and employees, and (2) the Architect, Architect's consultants, separate contractors, if any, and any of their Subcontractors, Sub-subcontractors, agents, and employees, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to this section or other property insurance applicable to the Work,

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except such rights as Contractor has to proceeds of such insurance held by the Contractor as a fiduciary. The Contractor, as appropriate, shall require of any separate contractors, Subcontractors, Sub-subcontractors, agents, and employees of any of them by appropriate written agreements, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§11.3.1.1.3 The Contractor as fiduciary shall have power to adjust and settle a loss with insurers. The Contractor shall pay all Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements shall require Subcontractors to make payment to their Sub-subcontractors in similar manner. If required in writing by a party in interest, the Contractor as fiduciary shall, upon occurrence of insured loss, give bond for proper performance of the Contractor's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Contractor shall deposit in a separate account proceeds so received, which the Contractor shall distribute in accordance with such agreement as the parties in interest may reach. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor under the insurance proceeds.

§ 11.3.1.2 DELETED.

§ 11.3.1.3 DELETED.

§ 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

§ 11.3.1.5 Partial occupancy or use shall not affect the validity or coverage of property insurance.

§ 11.3.2 BOILER AND MACHINERY INSURANCE
DELETED.

§ 11.3.3 LOSS OF USE INSURANCE
DELETED.

§ 11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3.5 DELETED.

§ 11.3.6 DELETED.

§ 11.3.7 WAIVERS OF SUBROGATION
The Contractor waives all rights against (1) Owner, the Subcontractors, Sub-subcontractors, agents, and employees, and (2) the Architect, Architect's consultants, separate contractors, if any, and any of their Subcontractors, Sub-subcontractors, agents, and employees, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to Article 11 or other property insurance applicable to the Work, except such rights as Contractor has to proceeds of such insurance held by the Contractor as a fiduciary. The Contractor, as appropriate, shall require of any separate contractors, Subcontractors, Sub-subcontractors, agents, and employees of any of them by appropriate written agreements, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§ 11.3.8 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.3.10. The Contractor shall pay Subcontractors their just shares of

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insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.3.9 DELETED.

§ 11.3.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers.

§ 11.4 PERFORMANCE BOND AND PAYMENT BOND

§ 11.4.1 The Contractor shall furnish a Performance Bond in an amount equal to one hundred percent (100%) of the Contract Sum, as security for the faithful performance of the Contract and also a one hundred percent (100%) Payment Bond, as security for the payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with the Contract. The Performance Bond and the Payment Bond may be in one or in separate instruments in accordance with local law. Surety companies must be authorized to write surety bonds in Texas and any such surety bond must comply with the requirements of Subchapter A of Chapter 3503 of the Texas Insurance Code

§11.4.1.1 The Contractor shall deliver the required Bonds to the Owner not later than the date of the preconstruction meeting. All Bonds will be reviewed by the Architect for compliance with the Contract Documents prior to the execution of the Contract. In the event that Architect has any questions concerning the sufficiency of the bonds, Architect shall refer the bonds to Owner or Owner's representative for decision.

§11.4.1.2 All bonds shall be originals. The Contractor shall require the attorney-in-fact who executes the required Bonds on behalf of the Surety to affix thereto a certified and current copy of the power-of-attorney. The name, address, and telephone number of a contact person for the Bonding Company shall be provided.

§ 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.4.3 The Bonds shall be provided to comply with the terms and provisions of Chapter 2253 of the Texas Government Code. Bonds shall be signed by an agent resident in the State of Texas and date of bond shall be on or after the date of execution of the Contract but prior to the date of the notice to proceed. If at any time during the continuance of the Contract, the surety of the Contractor's bonds becomes insufficient, the Owner shall have the right to require additional and sufficient sureties which the Contractor shall furnish to the satisfaction of the Owner within ten (10) days after notice to do so. In default thereof, the Contractor may be suspended, and all payment or money due to the Contractor withheld until sufficient bonds are provided by Contractor.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 UNCOVERING OF WORK

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time or Contract Sum.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 CORRECTION OF WORK

§ 12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION

The Contractor shall promptly correct Work rejected by the Architect as incomplete, defective, or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

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§ 12.2.2 AFTER SUBSTANTIAL COMPLETION

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the entire Work (unless otherwise provided in any Certificate of Partial Substantial Completion approved by the parties), or within such longer period of time as may be prescribed by law or in equity, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be defective or otherwise not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. This corrective period shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work. Corrective Work shall be warranted to be free from defects for a period equal to the longer of six (6) months after the completion of the corrective Work or one (1) year after the Date of Substantial Completion (subject to extension as previously described) or such longer period of time as may be prescribed by law or in equity, or expiration of the term of any applicable special warranty, if applicable, required by the Contract Documents. Any defect in such Work shall be corrected again by Contractor promptly upon notice of the defect from Owner. This obligation under this Subsection 12.2.2.1 shall survive acceptance of the Work under the Contract and termination of the Contract by the Owner. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§12.2.2.4 Just before the termination of the various guarantee periods, Contractor shall accompany Owner's agent and Architect on an inspection tour of the building and shall note any defects and shall start remedying these defects within ten (10) days of the inspection tour and shall prosecute the Work without interruption until accepted by Owner and Architect, even though such prosecution should extend beyond the limit of the guarantee period.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused in whole or in part by the Contractor's correction or removal of Work that is defective or otherwise not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents or under law or in equity. Establishment of the period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 ACCEPTANCE OF NONCONFORMING WORK

If the Owner prefers to accept Work that is defective or otherwise not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located.

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§ 13.2 SUCCESSORS AND ASSIGNS

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

§ 13.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation or other entity for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice or if delivered by facsimile to the offices of the person or corporation for which it was intended. Facsimiles received after 5:00 p.m. on a business day, or on a weekend or legal holiday on which the recipient's offices are closed, notice shall be deemed to have been duly served on the next business day.

§ 13.4 RIGHTS AND REMEDIES

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law or in equity or by any other agreement, and any such rights and remedies shall survive the acceptance of the Work and/or any termination of the Contract Documents.

§ 13.4.2 No action or failure to act by the Owner, Architect or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

§ 13.5 TESTS AND INSPECTIONS

§ 13.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Architect, Owner and Contractor shall be afforded a reasonable opportunity to attend, observe, and witness all inspections and tests of the Work. Architect or Owner may at any time request and receive from Contractor satisfactory evidence that materials, supplies, or equipment are in conformance with the Contract Documents. The conduct of any inspection or test and the receipt of any approval shall not operate to relieve Contractor from its obligations under the Contract Documents unless specifically so stated by Owner in writing.

§ 13.5.2 If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, or reveal faulty or otherwise defective Work, or if the necessity of any such testing, inspection, or approval procedures arises out of the fault, neglect, or omission of Contractor, Contractor shall bear all costs of such testing, inspection, and approval procedures and all other costs made necessary by Contractor's failures, including, without limitation, those costs of repeated and additional procedures and compensation for Architect's services and expenses of Owner's personnel and consultant fees and expenses. Such costs shall be paid by Contractor within ten (10) days of receipt of invoice from Owner with supporting data attached.

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§ 13.5.4 Required certificates of testing, inspection or approval shall, be secured by the Contractor and delivered to Owner, unless such testing or inspection services are arranged by Owner.

§ 13.5.5 If the Architect is to observe tests, inspections or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.5.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.6 INTEREST

An overdue payment bears interest at the rate of zero percent (0%) each month, or at the legal rate established by the Texas Government Code, currently in Section 2251.025. Any such payment shall be deemed overdue on the thirty-first (31st) day after Owner receives an invoice from Contractor.

§ 13.7 TIME LIMITS ON CLAIMS

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract within the time period specified by applicable law.

§ 13.8 EQUAL OPPORTUNITY

§ 13.8.1 The Contractor shall maintain policies of employment as follows: "The Contractor and the Contractor's Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to, the following: employment, promotion, demotion, or transfer; recruitment, or recruitment advertising; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants, notices setting forth the nondiscrimination policies."

§13.8.1.1 The Contractor and the Contractor's Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf; state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, or national origin.

§13.9 CERTIFICATION OF ASBESTOS-FREE PROJECT

§13.9.1 Contractor shall submit to the Architect a letter addressed to the Owner certifying that all materials used in the construction of this Project contain less than 0.10 by weight of asbestos and for which it can be demonstrated that, under reasonably foreseeable job site conditions, will not release asbestos fibers in excess of 0.1 fibers per cubic centimeter. Certification letters shall be dated, shall reference this specific Project, and shall be signed by not less than two (2) officers of the construction company.

§13.9.2 Certification shall further state that should asbestos fibers be found at this Project in concentrations greater than 0.1 fibers per cubic centimeter, that Contractor shall be responsible for determining which materials contain asbestos fibers and shall take corrective action to remove those materials from the Project at no additional cost to the Owner.

§13.9.3 Final payment shall not be made until this letter of certification has been received.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 TERMINATION BY THE CONTRACTOR

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

.1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;

.2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;

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§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Section 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work properly executed in accordance with the Contract Documents.

§ 14.1.4 Owner shall not be responsible for damages for loss of anticipated profits on Work not performed on account of any termination described in Subsections 14.1.1 and 14.1.2.

§ 14.2 TERMINATION BY THE OWNER FOR CAUSE

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- **.1** refuses or fails to supply enough properly skilled workers or proper materials and equipment;
- **.2** fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- **.3** disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority;
- **.4** disregards the instructions of Architect or Owner (when such instructions are based on the requirements of the Contract Documents);
- **.5** is adjudged bankrupt or insolvent, or makes a general assignment for the benefit of Contractor's creditors, or a trustee or receiver is appointed for Contractor or for any of its property, or files a petition to take advantage of any debtor's act, or to reorganize under bankruptcy or similar law; or
- **.6** otherwise does not fully comply with the Contract Documents**.**

§ 14.2.2 When any of the above reasons exist, the Owner, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- **.1** Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- **.2** Accept assignment of subcontracts pursuant to Section 5.4; and
- **.3** Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 To the extent the costs of completing Work, including compensation for additional professional services and expenses, exceed those costs that would have been payable to Contractor to complete the Work except for Contractor's default, Contractor will pay the difference to Owner, and this obligation for payment shall survive termination of the Contract. Such costs incurred by Owner will be determined by Owner and confirmed by Architect.

§14.2.5 In addition to Owner's right to remove Contractor from any part of Work pursuant to the Contract Documents, Owner may, at any time, at will and without cause, terminate any part of Work or any subcontract or all remaining Work for any reason whatsoever by giving seven (7) days' prior written notice to Contractor specifying the part of Work or subcontract to be terminated and the effective date of termination. Contractor shall continue to prosecute the part of Work not terminated. If any part of Work or subcontract is so terminated, Contractor shall be entitled to payment for Work properly executed in accordance with the Contract Documents (the basis for such payment shall be as provided in the Contract) and for costs directly related to Work thereafter performed by Contractor in terminating such Work or subcontract including reasonable demobilization and cancellation charges provided said Work is authorized in advance by Architect and Owner. No payment shall be made by Owner, however, to the extent that such Work or subcontract is, was, or could have been terminated under the Contract Documents or an equitable adjustment is made or denied under another provision of the Contract. In case of such termination, Owner will issue a Construction Change Directive or authorize a Change Order making any required

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adjustment to the Date of Substantial Completion and/or the Contract Sum. For the remainder of the Work, the Contract Documents shall remain in full force and effect.

§14.2.6 Owner shall not be responsible for damages for loss of anticipated profits on Work not performed on account of any termination described in Subsection 14.2.5.

§14.2.7 Upon a determination by a court of competent jurisdiction that termination of Contractor pursuant to Subsection 14.2.1 was wrongful, such termination will be deemed converted to a termination for convenience pursuant to Subsection 14.2.5 and Contractor's remedy for wrongful termination shall be limited to the recovery of the payments permitted for termination for convenience as set forth in Subsection 14.2.5

§ 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- **.1** that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- **.2** that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- **.1** cease operations as directed by the Owner in the notice;
- **.2** take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- **.3** except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 CLAIMS

§ 15.1.1 DEFINITION

A Claim is a demand or assertion by one of the parties seeking, as a matter of right adjustment or interpretation of the Contract Terms, payment of money, extension of time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. Claims must be by written notice.

§ 15.1.2 NOTICE OF CLAIMS

Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Said written notice of Claims shall state specifically the reason for the Claim, the date or dates of the cause or causes of the Claim, and if any extension of time is requested, the number of days of extension requested.

§ 15.1.3 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make

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payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4 CLAIMS FOR ADDITIONAL COST

If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Said notice shall itemize all Claims and shall contain sufficient detail and substantiating data to permit evaluation of same by Owner and Architect. No such claim shall be of value unless so made. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.5 CLAIMS FOR ADDITIONAL TIME

§ 15.1.5.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.5.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction. Extensions of time may be requested for any month of construction for days lost due to adverse weather in excess of the normally expected lost time; provided, however, if Architect determines that the seasonal average of adverse weather days during construction is less than would be normally expected, no Change Order shall be issued and the request for extension of time shall be denied.

§ 15.1.6 CLAIMS FOR CONSEQUENTIAL DAMAGES

Contractor shall not be entitled to claims for additional time and/or increase in Contract Sum due to a problem or non-performance of a subcontractor.

§ 15.1.7 In the event the Contractor fails to achieve substantial completion by the date indicated in the Contract, and extended by approved Change Order, the Owner shall be entitled to liquidated damages in the amount as stated in Subsection 3.1.1 of the modified AIA document A101 – 2007, General Conditions of the Contract for Construction, to which this AIA Document A201-2007, General Conditions of the Contract for Construction, is attached as Exhibit "C", per day until the Work is substantially completed. It is expressly understood that the said sum per day is agreed upon as a fair estimate of the pecuniary damages, which will be sustained by Owner in the event that the Work is not completed within the agreed time, or within the legally extended time, if any. Said sum shall be considered as liquidated damages only, the exact ascertainment of which is difficult, and in no sense be considered a penalty.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.6 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 INITIAL DECISION

§ 15.2.1 Claims, excluding those arising under Sections 10.3, 10.4, 11.3.9, and 11.3.10, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Initial Decision Maker with no decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim in whole or in part, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

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User Notes: (1682601336)

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to litigation.

§ 15.2.6 DELETED.

§ 15.2.6.1 DELETED.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 DELETED.

§ 15.3 MEDIATION

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract shall be subject to mediation as a condition precedent to litigation.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation.

§ 15.3.3 The parties shall share the mediator's fee. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 ARBITRATION

The parties expressly agree that disputes or claims arising under the Contract Documents shall not be subject to arbitration unless mutually agreed by the parties in writing.

§ 15.4.1 DELETED..

§ 15.4.1.1 DELETED.

§ 15.4.2 DELETED.

§ 15.4.3 DELETED.

§ 15.4.4 CONSOLIDATION OR JOINDER

§ 15.4.4.1 DELETED.

§ 15.4.4.2 DELETED.

§ 15.4.4.3 DELETED.

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User Notes: (1682601336)

AI-56312 **Purchasing Department** **12. B. 2.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Eddie Cantu, COMM. PCT. #2 **Submitted By:** Erika Zamora, COMM. PCT. #2

Department: COMM. PCT. #2

Information

CAPTION

Approval of Work Authorization No. 4 (with an estimated cost of $6,550.25) as submitted by Millennium Engineers Group, Inc., Contract No. C-16-207-05-10 to provide construction materials engineering and testing services for the Pct 2 Sioux Road Project.

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1200-431-00-122-132-0-721

FUNDS AVAILABLE Y/N?: Y/Pending **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Funding available in acct as of 9/9/16 $6,447.00.
Funding pending approval of AI#56311 CC 9/13/16 $200.00.

Attachments

Work Authorization #4

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 02:01 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Erika Zamora		Started On: 09/09/2016 11:07 AM
Final Approval Date: 09/09/2016		

HIDALGO COUNTY

Professional Construction Materials and Geo Technical Testing Services

Agreement # C-16-207-05-10

WORK AUTHORIZATION NO. 4

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **Millennium Engineers Group, Inc.**, professional Laboratory's of Pharr, Texas, hereinafter called "**Laboratory**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Laboratory** to provide

Construction Materials Engineering and Testing Services for the Sioux Rd. (Cesar Chavez Rd. to Alamo Rd.) Project.

The scope of services to be provided by the **Owner** is identified in ***EXHIBIT "A" – Scope of Services to be Provided by the Owner*** attached hereto.

The scope of services to be provided by the **Engineer** is identified in ***EXHIBIT "B" – Scope of Services to be Provided by the Laboratory*** attached hereto.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is $6,550.25
This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D".**

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with **Article**/Part/Section____ of the Agreement.

PART 4. FUNDING

This Work Authorization No. 4 shall be funded through funding source:
Account No. _____
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate **upon completion of scopes of the work authorization.**

PART 6. RESPONSIBILITIES AND OBLIGATIONS
This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION
Acknowledgement and confirmation by **Hidalgo County Precinct No. 2,** Commissioner, Eduardo "Eddie" Cantu, as to content and detail of this **Work Authorization No. 4**

HIDALGO COUNTY
COMMISSIONER PRECINCT NO. 2:

BY:_____

PART 8. ACCEPTANCE AND APPROVAL
This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of ____ day of _____, 2016.

THE LABORATORY:
MILLENNIUM ENGINEERS GROUP, INC.

_____
By: Andres Palma, Manager

THE OWNER:
HIDALGO COUNTY

_____
By: Ramon Garcia, County Judge

ATTEST:

_____
By: Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS

EXHIBIT "A" - Services to be Provided by the Owner
EXHIBIT "B" - Services to be Provided by the Laboratory
EXHIBIT "C" - Work Schedule
EXHIBIT "D" - Cost Proposal

EXHIBIT A
-Scope of Services to be provided by the County

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

General:

The Owner will provide to the Laboratory the following:

1) Provide the authorization to proceed with services through coordination with the project consulting and design Laboratory.
2) Payment for work performed by the Laboratory and accepted by the Owner in accordance with Article 3 of this Agreement.
3) Assistance to the Laboratory, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Laboratory cannot easily obtain.
4) Provide any available relevant data the Owner may have on file concerning the projects.
5) Provide timely review and decisions in response to the Laboratory's request for information and/or required submittals and deliverables, in order for the Laboratory to maintain the agreed upon work schedule prepared in accordance with Exhibit "A" attached to this Agreement.
6) Attend and participate in progress meetings as required and as coordinated and conducted by Laboratory.
7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Laboratory.

EXHIBIT B

-Scope of Services to be provided by the Laboratory

Exhibit "B"

Services to be Provided by Laboratory

The services to be provided by the LABORATORY in providing Geotechnical Laboratory Services, Construction Materials Testing Services, Construction Observation Services and Environmental Services for Hidalgo County Precinct No. 2 Projects, **"ON A AS NEEDED BASIS"** and projects is as follows:

A. Preliminary Phase:

(1) Attend preliminary conferences with the OWNER and, if requested, with the funding agency and other government agencies or interested parties regarding the Project.
(2) Provide for the necessary geotechnical investigation and testing necessary to develop the design.
(3) Provide environmental studies as may be necessary to complete a project.
(4) Provide assistance to the OWNER in providing material requirements and specifications for design, construction and maintenance projects.
(5) Provide assistance to the OWNER in providing pavement design recommendations for the design, construction and maintenance projects.
(6) Provide assistance to the OWNER in providing pavement rehabilitation recommendations for the design, and maintenance projects.
(7) Provide assistance to the OWNER in providing pavement condition studies.

B. Design Phase:

(1) Attend the OWNER'S and respective Party's meeting as requested for the purpose of explaining geotechnical investigation report recommendations and preliminary testing results and their impact to proposed design activities.
(2) Perform any additional geotechnical investigations, testing and environmental studies necessary to collect information required in the design of the Project.
(3) Provide assistance to the OWNER in providing material requirements and specification for design, construction and maintenance projects.
(4) Provide assistance to the OWNER in providing pavement design recommendations for the design, construction and maintenance projects.
(5) Provide assistance to the OWNER in providing pavement rehabilitation recommendations for the design, construction and maintenance projects.
(6) Provide assistance to the OWNER in providing pavement condition studies.
(7) Furnish the OWNER all necessary reports for preliminary design, design, construction and maintenance projects.

C. Construction/Maintenance Phase:

(1) Attend the OWNER'S and respective Party's pre-construction and construction meetings as requested for the purpose of explaining geotechnical investigation report recommendation and preliminary testing results and their impact to proposed construction activities and establish coordination and lines of communication for proposed construction materials testing during construction activities.
(2) Consult and advise with the OWNER during construction.

(3) Provide construction materials testing for construction and maintenance projects as required by the project plans and specifications and/or specified by the project design engineer.
(4) Review all material designs as requested by the OWNER and/or project design engineer.
(5) Furnish the OWNER all necessary reports for construction and maintenance projects.
(6) Provide construction inspection services as requested by the OWNER on construction and maintenance projects.

D. Miscellaneous/Other:

(1) Act for OWNER in professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of the profession.
(2) Perform all technical services under the general direction of a Licensed Professional Laboratory in the State of Texas and in substantial accordance with the basic requirements of the appropriate Standards of the American Society of Testing and Materials, where applicable, or other standards designated by County.
(3) Employ testing machines which have been calibrated within a period not exceeding twelve (12) months from the time of use by devised of accuracy traceable to the National Institute of Standards and Technology (NIST) of the United States Department of Commerce, and, upon request, submit to the OWNER or its authorized representative documentation of such calibration.
(4) Promptly submit formal construction materials testing reports for all tests, observations, and services performed indicating where applicable, compliance with OWNER specifications or other documents. Such reports shall be completed and factual, citing the tests performed, methods employed, values obtained, parts of the structure and location at which the tests were made.
(5) The plans and specifications prepared under this Agreement shall become the property of the OWNER upon completion of the work and payment in full of all monies due to the Laboratory.
(6) Retain all pertinent records relating to the services performed for a period of five (5) years following submission of all reports, during which period the records will be made available to the Owner within a reasonable time.

NOTE: Change in and/or additional services to Scope will require prior approval from OWNER prior to undertaking.

EXHIBIT C

Work Schedule

Millennium Engineers Group, Inc. will go out to site on an as-needed basis to perform testing services. Services will be provided as requested by project personnel. A 24-hour notice will be required from project personnel.

EXHIBIT D

"Proposal"

Millennium Engineers Group
MEG ENGINEERS
Consultants - Geotechnical - Testing

Work Schedule
Proposed Construction Materials Testing Services
Sioux Rd. (Cesar Chavez Road to Alamo Road) Project

☒SOILS SECTION

Task: Salvage Base Sample at Roadway (Per Sample, 1 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	2.5	50.00	125.00
Standard Proctor (each)	1	200.00	200.00
Atterberg Limits (each)	1	70.00	70.00
Sieve Analysis (each)	1	55.00	55.00
Wet Ball Mill (each)	-	210.00	-
Vehicle trip charge (each)	1	40.00	40.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	125.00	62.50
Project Management (hourly)	0.25	75.00	18.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per sample)	1	-	651.25
Sub-Total (per task)	**1**	**651.25**	**651.25**

Task: Salvage Base density testing at Roadway (Per Trip, 3 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	2.5	50.00	125.00
Nuclear density test (each)	4	28.00	112.00
Vehicle trip charge (each)	1	40.00	40.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.50	125.00	62.50
Project Management (hourly)	0.25	75.00	18.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	438.25
Sub-Total (per task)	**3**	**438.25**	**1,314.25**

SOILS Section Total **1,965.50**

☒HMAC PAVEMENT SECTION

Task: HMAC Pavement Field Rolling Pattern Testing (Per Trip, 2 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (hourly)	6	55.00	330.00
Nuclear Density Test (each)	6	28.00	168.00
Vehicle trip charge (each)	1	40.00	40.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	125.00	62.50
Project Management (hourly)	0.25	75.00	18.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	699.25
Sub-Total (per task)	**2**	**699.25**	**1,398.50**

Task: HMAC Pavement Laboratory Testing (2 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Extraction & Gradation, percent asphalt (each)	2	250.00	500.00
Theoretical maximum specific gravity of mixtures (each)	2	60.00	120.00
Lab Density (each)	2	65.00	130.00
Sub-Total (per trip)	2	-	750.00
Sub-Total (per task)	**2**	**750.00**	**1,500.00**

Task: HMAC Pavement Field Coring (Per Trip, 1 trips estimated with traffic control needed)

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (hourly)	10	55.00	550.00
Coring Rig (each)	1	95.00	95.00
Asphalt Cores (each)	8	60.00	480.00
Asphalt Core Density (each)	8	40.00	320.00
Vehicle trips (each)	2	40.00	80.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.50	125.00	62.50
Project Management (hourly)	0.25	75.00	18.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	1,686.25
Sub-Total (per task)	**1**	**1,686.25**	**1,686.25**

HMAC Pavement Section Total **4,584.75**

Total Estimated Cost **$6,550.25**

AI-56307 **Purchasing Department** **12. B. 3.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Eddie Cantu, COMM. PCT. #2 **Submitted By:** Erika Zamora, COMM. PCT. #2

Department: COMM. PCT. #2

Information

CAPTION

Pursuant to contract#C-16-171-04-12 with L&G Consulting Engineers, Inc. (Article 12), a request for approval by engineer to permit the subcontracting of AAMECC, LLC in connection with Work Authorization No. 2 for the demolition of the Pct 2 Mechanic Shop.

BACKGROUND

Fiscal Impact

FISCAL YEAR: **ACCT. #:**

FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

No fiscal impact.

Attachments

Subcontracting Notice

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 01:58 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Erika Zamora		Started On: 09/09/2016 10:24 AM
Final Approval Date: 09/09/2016		

L&G Engineering
Transportation Consultants

September 8, 2016

Hon. Eduardo "Eddie" Cantu
Hidalgo County Precinct No. 2
300 West Hall Acres
Pharr, Texas 78589

RE: Subcontracting Notice for On-Call Engineering ~ Pct 2 Mechanic Shop
Contract No. 16-171-04-12

Dear Commissioner Cantu:

We would like to inform you of the subcontractor that we will be using under the On-Call Engineering Contract Work Authorization #2, Hidalgo County Precinct 2 Mechanic Shop. Please coordinate with your Purchasing Department for Commissioner's Court approval of this notification. This sub-contractor will be providing Asbestos Testing Services for the above referenced project.

Subcontractor:

Mr. David A. Hanawa
AAMECC, LLC
1327 E. Washington Ave., #242
Harlingen, TX 78550
Phone (956) 535-3876

Should you have any questions, please feel free to give me a call at 956-585-1909.

Sincerely,

Robert Macheska, P.E., C.F.M.
Project Manager

cc: Hidalgo County Auditor's Office

2100 W. Expressway 83 • Mercedes, TX 78570 • Office (956) 565-9813 • Fax (956) 565-9018
900 S. Stewart Rd., Ste. 9 • Mission, TX 78572 • Office (956) 585-1909 • Fax (956) 585-1927

AI-56292 **Purchasing Department** **12. C. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Letty Saenz, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

Pursuant to Article 14 of the "professional engineering services" agreement #C-16-188-05-10 with Halff & Associates, Inc., is requesting approval to engage the services of SUB-CONTRACTORS (CELSO GONZALEZ dba ADA INSPECTIONS & CHANIN ENGINEERING, LLC) under WA1 in connection to Contract # C-16-188-05-10 (as previously approved by CC on 05/10/16) with adherence to insurance provisions required by said article and, subject to compliance with [HB1295 Form, [when and/or if applicable].

BACKGROUND

Sub-Letter by Halff Associates Inc.-C-16-188-05-10- (WA1)

Fiscal Impact

FISCAL YEAR: 2016 ACCT. #: 6-1100-432-00-124-162-0-740/334

FUNDS AVAILABLE Y/N?: Y MATCHING FUNDS Y/N?: N

BUDGETARY IMPACT:

PO# 745734

Attachments

Sub Letter by Halff Assoc-Pct 4 (Sanitation Project)

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 03:51 PM
Glinda Pacheco	Glinda Pacheco	09/08/2016 04:02 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Letty Saenz Started On: 09/08/2016 03:18 PM

Final Approval Date: 09/09/2016

HALFF

August 31, 2016
AVO 31806

Ms. Lulu Lucio
Hidalgo County Precinct 4
1051 North Doolittle Road
Edinburg, TX 78542

RE: WA#01 Sanitation Collection Facility & M Road Building, Contract C-16-188-05-10, Purchase Order #745734

Sub-contracting for TAS\ ADA

Dear Ms. Lucio:

The firm Halff Associates is proposing be use the following sub-consultants for this project:

- Mr. Celso Gonzalez (Provide Project Registration & Plan Review)
  614 N. Conway
  Mission, Texas 78572
  956-585-3848 office \ 956-585-7773 fax \ 956-453-3486 mobile

- Chanin Engineering (Structural Engineering)
  400 Nolana, Suite N2
  McAllen, Texas 78504
  956-687-9421 Office \ 956-687-3211 fax

We are recommending the use of these firms because we have worked with them successfully before and they have the necessary expertise to complete the work in a timely manner and at a lower cost.

Please contact Trey Murray and or Maribel Martinez if you need any additional information to process this request at 956-664-0286.

Sincerely,

HALFF ASSOCIATES, INC.
Menton J. Murray, III, PE, LEED AP
Vice President \Branch Manager

HALFF ASSOCIATES, INC.
5000 WEST MILITARY HIGHWAY, SUITE 100
McALLEN, TX 78503-7446
TEL (956) 664-0286
FAX (956) 664-0282
WWW.HALFF.COM

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-109023

Date Filed:
09/07/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Chanin Engineering, LLC
McAllen, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Hidalgo County Precint #4

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
C16-188-05-10
Hidalgo County Sanitation Collection Facility

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Chanin Engineering, LLC	McAllen, TX United States		X

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

TANIA A. ORTEGA
Notary Public, State of Texas
My Commission Expires
August 05, 2017

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Miguel Chanin, this the 8th day of September, 20 16, to certify which, witness my hand and seal of office.

Tania A. Ortega — Tania A. Ortega — Notary Public

Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-109032

Date Filed:
09/07/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Celso Gonzalez, Jr.
Palmhurst, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo County Precinct No. 4

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

C-16-188-05-10
ADA Inspections

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

THELMA RIVERA
Notary Public, State of Texas
My Commission Expires
March 18, 2017

AFFIX NOTARY STAMP / SEAL ABOVE

Signature of authorized agent of contracting business entity

Sworn to and subscribed before me, by the said Celso Gonzalez, Jr., this the 7th day of September 20 16, to certify which, witness my hand and seal of office.

Signature of officer administering oath	Printed name of officer administering oath	Title of officer administering oath
	Thelma Rivera	Notary

Zimbra **leticia.saenz@co.hidalgo.tx.us**

Fwd: AVO 31806 Hidalgo County\ WA01 Sanitation Coll Facility M Rd Bldg.

From : Maria Lucio <maria.lucio@co.hidalgo.tx.us> Thu, Sep 08, 2016 12:23 PM

Subject : Fwd: AVO 31806 Hidalgo County\ WA01 Sanitation Coll Facility M Rd Bldg. 1 attachment

To : leticia saenz <leticia.saenz@co.hidalgo.tx.us>

External images are not displayed. Display images below

Please place on agenda, thank you!

Sent from my iPhone

Begin forwarded message:

From: "Martinez, Maribel" <MariMartinez@halff.com>
Date: September 1, 2016 at 11:43:54 AM CDT
To: "maria.lucio@co.hidalgo.tx.us" <maria.lucio@co.hidalgo.tx.us>
Cc: "Murray, Trey" <TMurray@Halff.com>, "Galvan, Alma" <AGalvan@Halff.com>, "Chávez", Juan de Dios <jchavez@Halff.com>
Subject: AVO 31806 Hidalgo County\ WA01 Sanitation Coll Facility M Rd Bldg.

Lulu good morning,
Attached is letter you requested for our subs on this project.
Please let me know if you need anything else.

Maribel Martinez
Office Manager

O: (956) 445-5208

HALFF ASSOCIATES, INC.
5000 West Military, Suite 100
McAllen, TX 78503-7446

Halff.com | Facebook | Twitter | LinkedIn | YouTube

AI-56285 **Purchasing Department** **12. C. 2.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Elena Gomez, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

a. Approval to purchase of One (1) 2017 Freightliner 114SD through the County's membership/participation with HGAC awarded vendor, Houston Freightliner, Inc. (Contract #HT06-16)

b. Approval to purchase of One (1) Hoist from B & C Body Company thru Buyboard contract # 425-13

BACKGROUND

Project #2016-318H
2017 Freightliner $ 123,704.00
Hoist $36,428.00
Total amount $160,132.00

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1350-431-00-124-029-0-751

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Funds available as of 9/9/16.

Attachments

HB1295
Alio
Buyboard Backup
HGAC Backup

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/08/2016 02:25 PM
Ivan Cantu	Ivan Cantu	09/08/2016 03:18 PM
Purchasing Department	Veronica Ortiz	09/09/2016 03:24 PM

Budget & Management	Veronica Ortiz	09/09/2016 03:25 PM
Glinda Pacheco	Glinda Pacheco	09/09/2016 04:08 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Elena Gomez Started On: 09/08/2016 01:58 PM

Final Approval Date: 09/09/2016

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-109358

Date Filed:
09/08/2016

Date Acknowledged:
09/08/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Houston Freightliner, Inc
Houston, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

2016-318H
2017 Freightliner with Roll Off body

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

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Houston, TX United States

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2016-318H
2017 Freightliner with Roll Off body

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		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

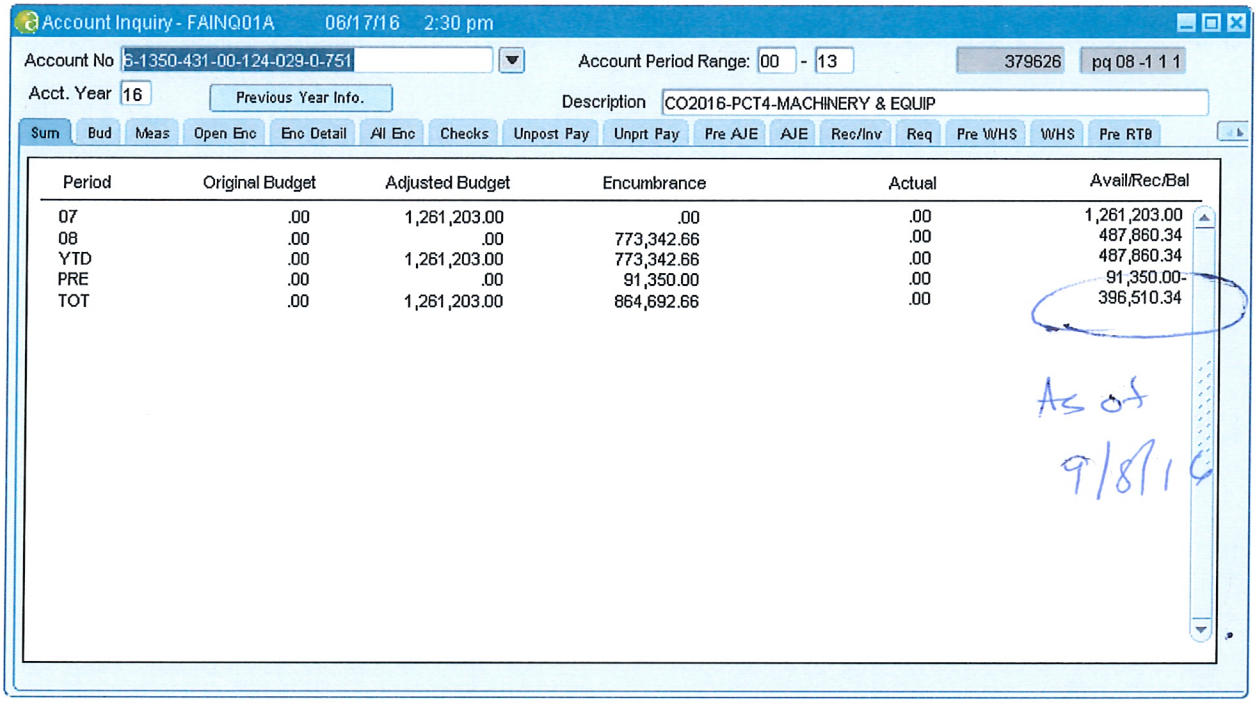
DIANA SALAZAR
Notary Public, State of Texas
My Commission Expires
October 19, 2019

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Mike McCarthy, this the 8th day of September, 20 16, to certify which, witness my hand and seal of office.

Salazar — Signature of officer administering oath
Diana Salazar — Printed name of officer administering oath
Notary — Title of officer administering oath


Account Inquiry - FAINQ01A 06/17/16 2:30 pm
Account No 5-1350-431-00-124-029-0-751
Account Period Range: 00 - 13
379626
pg 08 -1 1 1
Acct. Year 16
Previous Year Info.
Description CO2016-PCT4-MACHINERY & EQUIP
Sum Bud Meas Open Enc Enc Detail All Enc Checks Unpost Pay Unprt Pay Pre AJE AJE Rec/Inv Req Pre WHS WHS Pre RTB
Period Original Budget Adjusted Budget Encumbrance Actual Avail/Rec/Bal
07 .00 1,261,203.00 .00 .00 1,261,203.00
08 .00 .00 773,342.66 .00 487,860.34
YTD .00 1,261,203.00 773,342.66 .00 487,860.34
PRE .00 .00 91,350.00 .00 91,350.00-
TOT .00 1,261,203.00 864,692.66 .00 396,510.34
As of
9/8/16

PLEASE REVIEW THE QUOTATION BELOW. THIS TRUCK CAN BE PURCHASED USING THE BUYBOARD CONTRACT NUMBER 208-04. TO ORDER SEND THIS PURCHASE ORDER TO STEVE FISHER, PH: 1-800-695-2919 EXT. 7153, FAX 800-211-5454.

PURCHASE ORDERS ARE TO BE MADE OUT TO THE VENDOR:
B & C BODY COMPANY
ATTN: JIM LEWIS PHONE: 214-631-2196 FAX : 214-630-2755

End User:	HIDALGO CO. PCT 4	**DATE:**	8/23/2016
Prepared By:	JIM LEWIS	**CONTRACT 425-13**	
VENDOR:	B & C BODY COMPANY		
Description:	**GALBREATH R/O HOIST**		
A Item Base Unit Price, Per BUYBOARD Contract:	R/O HOIST	**A:**	16894

B OPTIONS QUOTED

Description	Cost	Description	Cost
NSHD NYLON HOLD DOWN STRAPS	495	HUCK (HUCK BOLT FRAME)	2322
SA-17A 48" TOOL BOX	888	U5BM/8044BO AIR ASSIST ICC	1245
DTPF HDTP TANDEM FENDERS	1118	TF INSIDE AIR CONTROLS	850
FMB FENDER MOUNTING BRACKET	315	RLR REAR LOADING RAMPS	913
TMP TARPER MOUNTING BRACKET	275		
HK989 PIONEER RP4500SARG	9968		
HIGH PERCENTAGE PTO	1145		
		Subtotal From Additional Sheet(s):	

Subtotal B: 19,534

C Unpublished Options (Itemize below, attach additional sheet(s) if necessary)

DESCRIPTION	COST	DESCRIPTION	COST	TOTAL
		Subtotal From Additional Sheet(s):		

Subtotal C:

D Miscellaneous Price Adjustments

Subtotal D:

E	**TOTAL PRICE FOR ONE UNIT!!!**		**36,428**
	Quantity Ordered	**X**	**1**
	TOTAL PRICE FOR UNIT!!!	**Subtotal E:**	**36,428**
	BUYBOARD FEE INCLUDED		

Total Purchase Price (E+F+G): **36,428**

BuyBoard® Cooperative Purchasing

Administration | RFQ | Reports | Sho

Vendor Contract Information

Back

Search:

All
Vendor Discounts Only
Catalog Pricing Only

Refine Your Search:

Vendors
B & C Body Company[X]
Price Range
Show all prices
Category
None Selected
Contract
None selected

Additional Searches:

Search by Vendor

Browse Contracts

Additional Resources

Vendor Name:	B & C Body Company
Address:	2934 Hwy 31 North Longview, TX 75603
Phone Number:	(214) 631-2196
Alternate Phone Number	(501) 454-1007
Email:	jim.lewis@bandcbody.com
Website:	http://www.bandcbody.com
Federal ID:	26-0423413
Contact:	Jim Lewis
Accepts RFQs:	Yes
Minority Owned:	No
Women Owned:	No
Service-Disabled Veteran Owned:	No
EDGAR:	No
Contract Name:	Refuse Bodies, Trailers & Other Bodies (Bodies 40(
Contract#:	425-13
Effective Date:	10/01/2013
Expiration Date:	11/30/2016
Payment Terms:	Net 30 days
Delivery Days:	180
Shipping Terms:	Pre-paid and added to invoice
Freight Terms:	FOB Destination
Ship Via:	Common Carrier
Region Served:	All Texas Regions
States Served:	All States
Additional Info:	Purchase order subject to a $400 fee.
Quote Reference Number:	425-13
Additional Dealers:	Dallas TX

Contract Documents

EDGAR Notice:	Click to view EDGAR Notice

Shopping Cart

Vendor	Description	Part Number	Price	Qty	Total
B & C Body Company	Roll Off Hoist, 60,000# capacity outside rail	Hoist	$16,894.00	1	$16,894.00
				Grand Total:	**$16,894.00**

Proposal Invitation No. 425-13 - Refuse Bodies, Trailers, and Other Bodies

Item No.	Specified Brand or Equal	Short Description	Full Description	Delivered Price	Brand and Model	Options
70	Dragon, Etc.	30 Cubic Yard Roll Off Container	**Roll Off Container** -- 30 cubic yard with rectangular or bathtub design, 1/4" floor, 2 rollers on rear, 3/4" hook plate			Attach separate sheet with upgrade options
71	Dragon, Etc.	40 Cubic Yard Roll Off Container	**Roll Off Container** -- 40 cubic yard with rectangular or bathtub design, 1/4" floor, 2 rollers on rear, 3/4" hook plate			Attach separate sheet with upgrade options
72	Galbreath, Etc.	Roll Off Hoist, 60,000# capacity outside rail	**Roll Off Hoist** -- 60,000 lb. Capacity, for 22' containers, air shift PTO/Pump, inside & outside controls, ICC bumper, toolbox and fenders			Attach separate sheet with upgrade options
73	Palfinger, Etc.	Palift Hook load Roll Off Hoist	**Palift Hook load Roll Off Hoist** -- 9,000 to 68,000 lb. lift capacities, 14,500 to 86,000 lb. GVW ratings			Attach separate sheet with upgrade options
74	Heil STARR System, Etc.	33 yard Semi-Trailer	**Semi Trailer** -- 33 yard			Attach separate sheet with upgrade options
75	Heil STARR System, Etc.	37 yard Semi-Trailer	**Semi Trailer** -- 37 yard			Attach separate sheet with upgrade options
76	Wayne Pup, Etc.	Trailer Mount Side load Refuse Container	**Trailer Mount Side load Refuse Container** -- all manufacturer's standard equipment for refuse container			Attach separate sheet with upgrade options
77	J&J, Dyna Hauler, CPS, Etc.	115 cubic yard steel or aluminum transfer trailer	**Transfer Trailer** -- 115 cubic yard steel or aluminum with open top, walking floor			Attach separate sheet with upgrade options
78	J&J, Dyna Hauler, CPS, Etc.	75 cubic yard steel transfer trailer	**Transfer Trailer** -- 75 cubic yard steel packer style			Attach separate sheet with upgrade options

HGACBuy	CONTRACT PRICING WORKSHEET For MOTOR VEHICLES Only	Contract No.:	HT06-16	Date Prepared:	8/29/2016

This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents MUST be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.

Buying Agency:	Hidalgo County PCT 4	Contractor:	Houston Freightliner, Inc
Contact Person:	Regino Salinas	Prepared By:	Michael McCarthy
Phone:	956-383-3112	Phone:	713-580-8122
Fax:		Fax:	713-676-1603
Email:	regino.salinas@co.hidalgo.tx.us	Email:	Mike.McCarthy@STRHouston.com

Product Code:	D3	Description:	2017 Freightliner 114SD

A. Product Item Base Unit Price Per Contractor's H-GAC Contract:	77539

B. Published Options - Itemize below - Attach additional sheet(s) if necessary - Include Option Code in description if applicable:
(Note: Published Options are options which were submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
256" Wheelbase	1028	Air Conditoner	850
Allison 4500 RDS Transmission	16958	Air Cab Mounts	118
20000 LB Front Axle	2483	Air Ride Driver Seat	165
Hendrickson Haulmaxx 46k Rear Suspension	3906	Adjustable Steering Column	376
RH Outboard Under Step Exhaust with Vertical Stack	629	AM/FM/CD Radio	375
20,000 LB Front Suspension	1085	Battery Shut Off located LH of Driver Seat	205
46,000 LB Rear Axle	2726	Wabco SS-1200 Air Dryer	195
1/4" Frame Liner	650		
70 LH Gal Fuel Tank	129		
315/80R22.5 Front Tires	623	Subtotal From Additional Sheet(s):	
Front Fender Extensions	215	Subtotal B:	32716

C. Unpublished Options - Itemize below / attach additional sheet(s) if necessary:
(Note: Unpublished options are items which were not submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
1/2x3.64x11-7/8 Frame	1875	22.5x9.0 Alcoa Aluminum Front Wheels	386
Flywheel MTD PTO	5422	Subtotal From Additional Sheet(s):	
Detroit DD13 435 HP	575	Subtotal C:	8258

Check: Total cost of Unpublished Options (C) cannot exceed 25% of the total of the Base Unit Price plus Published Options (A+B).	For this transaction the percentage is:	7%

D. Total Cost Before Any Applicable Trade-In / Other Allowances / Discounts (A+B+C):					
Quantity Ordered:	1	X Subtotal of A + B + C:	118513	=	Subtotal D: 118513
E. H-GAC Order Processing Charge (Amount Per Current Policy):					Subtotal E: 600

F. Trade-Ins / Special Discounts / Other Allowances / Freight / Installation / Miscellaneous Charges:

Description	Cost	Description	Cost
Detroit EW4 5 Year/200k Ext Warranty	3775	Wiring 5 year/200k Ext Warranty	938
Front and Rear Axle 5 year/200k Ext Warranty	390	Discount	-1613
Allison 4500 RDS Transmission 5 Year Ext Warranty	1101	Subtotal F:	4591

Delivery Date:	G. Total Purchase Price (D+E+F):	123704

0 *

3,775 +
390 +
1,101 +
938 +
1,613 -
003 . . . . . .
4,591 *

0 *

77,539 +
32,716 +
8,258 +
600 +
4,591 +
005 . . . . . .
123,704 *

0 *

1,875 +
5,422 +
575 +
386 +
004 . . . . . .
8,258 *

1,028 +
16,958 +
2,483 +
3,906 +
629 +
1,085 +
2,726 +
650 +
129 +
623 +
215 +
850 +
118 +
165 +
376 +
375 +
205 +
195 +
018 . . . . . .
32,716 *

GENERAL PURPOSE & EMERGENCY VEHICLES

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
C2	F-450, 4x2, Regular Cab, Diesel Engine	$31,730

Back to top

FREIGHTLINER

Contractor: Doggett Freightliner of South Texas, LLC

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
D10	MT45 Stripped Chassis	$45,487
D11	MT55 Stripped Chassis	$48,482

Back to top

FREIGHTLINER

Contractor: Houston Freightliner, Inc.

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
D1	108SD-70, Conv. Cab, SBFA, SRA	$63,924
D2	108SD-80, Conv. Cab, SBFA, TRA	$73,872
D3	114SD, Conv. Cab, SFFA, SRA	$77,539
D4	122SD, Conv Cab, SFFA, TRA	$91,973
D5	M2-106-60, Conv. Cab, SBFA, SRA	$57,272
D6	M2-106-70, Conv. Cab, SBFA, SRA	$59,658
D7	M2-106-80, Conv. Cab, SBFA, TRA:	$69,353
D8	M2-112, Conv. Cab, SBFA, TRA	$74,735
D9	Cascadia CA113-DC, Conv Cab Tractor, SBFA, TRA	$89,634

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HINO

Contractor: Tyler Motor Co., Inc.

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE

MEDIUM AND HEAVY TRUCKS & TRUCK BODIES - HT06-16

Contract No.: HT06-16

Effective Date: June 1, 2016 to May 31, 2018

These are complete, turn-key chassis, equipped with current EPA threshold compliant engines/emissions, and consistent with the components and performance of H-GAC specification configuration, as viewed on this link:

For each Base Unit cab-chassis priced in the table, below, other than those options/upgrades called for by an HGAC member (alternate engine, transmission, wheelbase, body, etc), no additional, compulsory equipment or fees are required to render these cab-chassis as functioning, legally-equipped machines meeting those minimums established for each model's base configuration. Unless otherwise noted in the descriptions below, the Base Unit prices below include any emission surcharges and standard factory-to-dealer freight. Freight from dealers to HGAC members (or from dealer to conversion company) shall be recognized as a separate PO line item, unique to end user. Vendors priced various chassis manufacturer options from which HGAC members may build alternative configurations. Contact vendors for a complete quote relative to this contact .

Note: Contact information on the right side bar will be listed only after the Contractor has fully executed their contract.

- AUTOCAR
- AUTOCAR
- CATERPILLAR
- FORD
- FORD
- FREIGHTLINER
- FREIGHTLINER
- HINO
- INTERNATIONAL
- ISUZU
- ISUZU
- KENWORTH
- KENWORTH
- MACK
- PETERBILT
- RAM
- VOLVO
- WESTERN STAR

RE: Truck Bodies: various truck bodies (e.g. aerials, dump bodies, wrecker bodies, service bodies, etc.) are available through each vendor's options pricing. Contact vendors for more details.

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AUTOCAR

Contractor: Chastang Enterprises, dba Chastang's Bayou City Autocar

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
A2	ACX42, COE, SRA	$81,303
A3	ACX64, COE, TRA	$87,422

Back to top

AUTOCAR

Contractor: Grande Truck Center

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
A1	ACMD42, COE, SRA	$75,600

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CATERPILLAR

H-GAC CONTACTS

- **Loleta Chappel**
  (P): 713-993-2486
  (F): 713-993-4548
  loleta.chappel@h-gac.com

VENDOR CONTACTS

- **Chastang Enterprises Inc. dba Chastang Ford dba Chastang's Bayou City Autocar**
  Ed Miller
  (P): 713-678-5007
  (F): 713-678-5001
  Click here for Email
- **Cleveland Mack Sales, Inc. d/b/a Performance Truck**
  Peston Fredrich
  (P): 713-844-7161
  (F): 713-844-7222
  Click here for Email
- **Doggett Freightliner of South Texas, LLC**
  Mike Crockett
  (P): 210-277-4373
  (F): 210-661-0289
  Click here for Email
- **French Ellison Truck Center**
  Jason w. Mims
  (P): 210-228-2028
  (F): 210-662-5999
  Click here for Email
- **Grande Truck Center**
  Rocky Shoffstall
  (P): 210-666-7112
  (F): 210-666-7216
  Click here for Email
- **Holt Texas, LTD.**
  William Mitchell
  (P): 210-648-1111
  (F): 210-648-0079
  Click here for Email
- **Houston Freightliner, Inc**
  Michael McCarthy
  (P): 713-580-8122
  (F): 713-955-6282
  Click here for Email
- **Love Field Chrysler Dodge Jeep Ram**
  Tim Middlebrooks
  (P): 972-707-9438
  (F): 214-350-0085
  Click here for Email
- **Rush Truck Centers of Arizona, Inc. dba Rush Truck Center, Phoenix**
  George Beal
  (P): 602-422-8122
  (F): 602-422-8175
  Click here for Email
- **Rush Truck Centers of California dba Rush Truck Center, Pico Rivera**
  Kevin Voss
  (P): 800-776-3647
  (F): 800-473-2257
  Click here for Email
- **Rush Truck Centers of California, Inc. dba Rush Truck Cernter, Sylmar**

Doggett Freightliner of South Texas

3103 N Cage Blvd

Pharr, TX, 78577

ROLL-OFF TRUCK OUT OF STOCK

New and Used Truck Sales

Contact: Mark Brunnemann

©(956)559-3322

(E) mark.brunnemann@Doggett.com

224173

DAIMLER TRUCKS NORTH AMERICA LLC PAGE 1

4747 N CHANNEL AVE, PO BOX 3849, PORTLAND, OR 97208-3849

0VEHICLE ID: 1FVHG3DV6GHGY9244
VEH S/N: GY9244

INVOICE NO.....P44759
INVOICE DATE.....04/24/15
TSO NO.....AM48WH
MODEL NO.....114SD
ENG SN.....471927S0330458
BUILD LOC.....MT. HOLLY TMP
PO NO.....
SALES OUTLET.....BWXD
CUSTOMER ACCT.....W67898
STOCK OR SOLD.....STOCK

0 DOGGETT FREIGHTLINER OF SOUTH TEXAS, LLC

SOLD TO: P.O.BOX 201150
SAN ANTONIO, TX 78220

TO BE PAID BY: DAIMLER TRUCK FINANCIAL
1011 WARRENVILLE RD,
SUITE 700
LISLE, IL 60532

CUSTOMER: DOGGETT FREIGHTLINER OF SOUTH TEXAS, LLC
P.O.BOX 201150
SAN ANTONIO, TX 78220

0	TSO LINE	DB CODE	DESCRIPTION	SUGGESTED RETAIL
0			PRICE LEVEL INFORMATION	
0	01	PRL-09D	SD PRL-09D (EFF:08/05/14)	
0			BASE MODEL	
0	02	001-177	114SD CONVENTIONAL CHASSIS	139,434.00
	03	004-216	2016 MODEL YEAR SPECIFIED	N/C
	04	995-1AE	FREIGHTLINER LEVEL II WARRANTY	N/C
	05	002-004	SET BACK AXLE - TRUCK	-1,713.00
	06	019-002	STRAIGHT TRUCK PROVISION	STD
	07	003-001	LH PRIMARY STEERING LOCATION	STD

1

DAIMLER TRUCKS NORTH AMERICA LLC PAGE 2

4747 N CHANNEL AVE, PO BOX 3849, PORTLAND, OR 97208-3849

0VEHICLE ID: 1FVHG3DV6GHGY9244 INVOICE NO.....P44759

VEH S/N: GY9244 INVOICE DATE.....04/24/15

0			ENGINE	
0	08	101-2TF	DETROIT DD13 12.8L 435 HP @ 1800 RPM, 2080 GOV RPM, 1550 LB/FT @ 1100 RPM	807.00
	09	99C-013	2013 ONBOARD DIAGNOSTICS/2010 EPA/CARB/GHG14	N/C
	10	99Z-004	VEHICLE IS SUBJECT TO EPA GHG14, DOES NOT HAVE REGULATORY VEHICLE SPEED LIMITER (VSL) OR AUTOMATIC ENGINE SHUTDOWN (AES)	N/C
	11	99D-011	2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LOWER FORWARD CORNER OF DRIVER DOOR)	N/C
	12	28F-002	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND DASH MOUNTED REGENERATION REQUEST SWITCH	N/C
	13	79A-065	65 MPH ROAD SPEED LIMIT	N/C
	14	79B-000	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT	N/C
	15	79C-998	NO DRIVER FUEL ECONOMY INCENTIVE	N/C
	16	79D-998	NO PROGRESSIVE SHIFTING	N/C
	17	79E-998	NO LOW RANGE TORQUE PROTECT	N/C
	18	79F-998	NO FLEET MANAGEMENT	N/C
	19	79G-006	5 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE	N/C
	20	79J-998	NO PTO SHUTDOWN CONFIGURATION	N/C
	21	79K-005	PTO MODE ENGINE RPM LIMIT - 900 RPM	N/C
	22	79L-998	PTO MODE THROTTLE OVERRIDE DISABLED	N/C
	23	79M-003	PTO MODE BRAKE OVERRIDE - PARK BRAKE NOT APPLIED	N/C
	24	79N-998	NO PTO MODE CLUTCH OVERRIDE	N/C
	25	79P-001	PTO RPM WITH CRUISE SET SWITCH - 600 RPM	N/C
	26	79Q-001	PTO RPM WITH CRUISE RESUME SWITCH - 600 RPM	N/C
	27	79R-998	NO PTO MODE COOLING FAN	N/C
	28	79S-001	PTO MODE CANCEL VEHICLE SPEED - 5 MPH	N/C
	29	79T-001	PTO MODE RPM INCREMENT - 25 RPM	N/C
	30	79U-007	PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND	N/C
	31	79V-998	NO PTO MODE DPF REGEN	N/C
	32	79W-001	ONE REMOTE PTO SPEED	N/C
	33	79X-009	REMOTE PTO SPEED 1 SETTING - 1200 RPM	N/C
	34	79Y-998	NO REMOTE PTO SPEED 2 SETTING	N/C
	35	79Z-998	NO REMOTE PTO SPEED 3 SETTING	N/C
	36	80A-998	NO ALTERNATE ROAD SPEED LIMIT	N/C
	37	80B-998	NO CHECK ENGINE LIGHT ON OVERSPEED	N/C
	38	80C-998	NO ENGINE BRAKE WITH CRUISE CONTROL	N/C
	39	80D-998	NO SOFT CRUISE CONTROL	N/C
	40	80E-998	NO ENGINE FAN WITH RETARDER	N/C

1

0VEHICLE ID: 1FVHG3DV6GHGY9244 INVOICE NO.....P44759
VEH S/N: GY9244 INVOICE DATE.....04/24/15

0	95	171-007	GATES BLUE STRIPE COOLANT HOSES OR EQUIV ALENT	N/C
	96	172-001	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES	N/C
	97	270-016	RADIATOR DRAIN VALVE	N/C
	98	168-998	NO RADIATOR/OIL PAN GUARD	N/C
	99	360-998	NO FRONT ENGINE PTO	N/C
	100	361-013	FLYWHEEL PTO MOUNTED 1 O'CLOCK WITH 1.21 7 RATIO AND COMPACT 2000 FLANGE YOKE; RE QUIRED VISCOUS DAMPER FOR DRIVESHAFT PRO VIDED BY ENGINE MANUFACTURER	5,422.00
	101	138-998	NO BLOCK HEATER	N/C
	102	141-998	NO COOLANT HEATER - GAS/DSL	N/C
	103	166-998	NO OIL PREHEATER	N/C
	104	140-998	NO ENGINE HEATER RECEPTACLE	N/C
	105	132-998	NO AIR INTAKE WARMER	N/C
	106	155-065	DELCO 12V 39MT+ HD/OCP STARTER WITH THER MAL PROTECTION AND INTEGRATED MAGNETIC S WITCH	N/C
0			TRANSMISSION & EQUIPMENT	
0	107	342-1M3	ALLISON 4500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	22,458.00
	108	352-998	NO AUXILIARY TRANSMISSION	N/C
	109	343-325	ALLISON VOCATIONAL PACKAGE 180 - AVAILAB LE ON 3000/4000 PRODUCT FAMILIES WITH VO CATIONAL MODEL RDS	N/C
	110	84B-013	ALLISON VOCATIONAL RATING FOR REFUSE APP LICATIONS AVAILABLE WITH ALL PRODUCT FAM ILIES	N/C
	111	84C-023	PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3 000/4000 PRODUCT FAMILIES ONLY	N/C
	112	84D-023	SECONDARY MODE GEARS, LOWEST GEAR 1, STA RT GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY	N/C
	113	97G-004	TRANSMISSION PROGNOSTICS - ENABLED 2013	N/C
	114	345-003	PUSH BUTTON ELECTRONIC SHIFT CONTROL, DA SH MOUNTED	N/C
	115	347-998	NO CLUTCH HOUSING MAT'L	N/C
	116	370-011	WATER TO OIL TRANSMISSION COOLER, FRAME MOUNTED	N/C
	117	346-003	TRANSMISSION OIL CHECK AND FILL WITH ELE CTRONIC OIL LEVEL CHECK	N/C
	118	368-998	NO EXTERNAL TRANSMISSION OIL FILTER	N/C
	119	341-018	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSI ON DRAIN, AXLE(S) FILL AND DRAIN	N/C

1

0VEHICLE ID: 1FVHG3DV6GHGY9244 INVOICE NO.....P44759
VEH S/N: GY9244 INVOICE DATE.....04/24/15

0	282	212-007	FUEL TANK(S) FORWARD	STD
	283	231-998	NO FUEL TANK MTG BETWEEN RAILS	STD
	284	232-998	NO ADDITIONAL FUEL PROVIDED	STD
	285	664-001	PLAIN STEP FINISH	STD
	286	207-005	FUEL TANK FILLER NECK ANTI-SIPHON INSERT	36.00
	287	205-001	FUEL TANK CAP(S)	STD
	288	220-998	NO FUEL HEATER	STD
	289	122-998	NO FUEL/WATER SEPARATOR	STD
	290	216-020	EQUIFLO INBOARD FUEL SYSTEM	STD
	291	202-016	HIGH TEMPERATURE REINFORCED NYLON FUEL L INE	STD
	292	213-998	NO FUEL LINE INSULATION	STD
	293	221-001	FUEL COOLER	148.00
0			TIRES	
0	294	093-1R8	GOODYEAR G289 WHA 315/80R22.5 20 PLY RAD IAL FRONT TIRES	792.00 ✓
	295	094-0JY	GOODYEAR G182 RSD 11R22.5 16 PLY RADIAL REAR TIRES	640.00
	296	095-998	NO PUSHER/TAG TIRES	STD
	297	510-998	NO SPARE TIRE	STD
0			HUBS	
0	298	418-056	CONMET PRESET PLUS IRON FRONT HUBS	STD
	299	450-056	CONMET PRESET PLUS IRON REAR HUBS	STD
	300	449-998	NO PUSHER OR TAG HUBS	STD
0			WHEELS	
0	301	502-1M3	ALCOA 89465X 22.5X9.00 10-HUB PILOT 5.96 INSET ALUMINUM DISC FRONT WHEELS	386.00 ✓
	302	505-545	MAXION WHEELS 90260 22.5X8.25 10-HUB PIL OT 2-HAND HD STEEL DISC REAR WHEELS	N/C
	303	509-998	NO PUSHER/TAG DISC WHEELS	STD
	304	511-998	NO SPARE WHEEL	STD
	305	51A-998	NO ADDITIONAL SPARE WHEEL	STD
	306	524-998	NO POLISHED, BRIGHT STANDARD POLISH, CLE AN BUFF OR BRUSHED FINISH FRONT WHEELS	N/C
	307	525-998	NO POLISHED, BRIGHT STANDARD POLISH, CLE AN BUFF OR BRUSHED FINISH REAR WHEELS	N/C
	308	526-998	NO POLISHED, BRIGHT STANDARD POLISH, CLE AN BUFF OR BRUSHED FINISH PUSHER/TAG WHE ELS	N/C
	309	498-009	WHEEL STUDS FOR CUSTOMER INSTALLED HUB P ILOTED DUALED ALUMINUM WHEELS	N/C

Prepared for:
Regino Salinas
Hidalgo County PCT 4
1051 North Doolottle Road
Edinburg, TX 78542
Phone: 956-383-3112

Prepared by:
Mark Brunnemann
DOGGETT FREIGHTLINER OF SOUTH TEXAS, LLC
3103 NORTH CAGE
PHARR, TX 78577

ITEMS NOT INCLUDED IN ADJUSTED LIST PRICE

Other Factory Charges

PMU-017	2016 OBD/2010 EPA/CARB/GHG17 ESCALATOR	$350.00
R1X-001	2 YEAR SERVICE CONTRACT INCLUDED WITH VIRTUAL TECHNICIAN PRICING	N/C
P73-2FT	STANDARD DESTINATION CHARGE	$2,000.00

Extended Warranty

WAI-10V	EW4 DD13 VOC $0 DEDUCTIBLE 5 YEAR/200000 MILES FULL COVERAGE	$3,775.00
WA2-057	WIRING: HD EXTREME 5 YEAR/200,000 MILES/322,000 KM EXTENDED COVERAGE FEX APPLIES	$938.00
WAK-126	ALLISON 4500 RDS TRANSMISSION FOR REFUSE EXTENDED WARRANTY, 5 YEARS/UNLIMITED MILEAGE FEX	$1,101.00
WAL-113	AXLE: FRONT/TANDEM REAR HD EXTREME 5 YEAR/200,000 MILE/322,000 KM EXTENDED AXLE COVERAGE.	$390.00

Currency Exchange Rate	1.0000
Total Extended Warranty (Local Currency)	$6,204.00

RE: Contracts HT06-16

From : Jennifer Lundy <Jennifer.Lundy@h-gac.com> Thu, Aug 18, 2016 04:29 PM
Subject : RE: Contracts HT06-16 3 attachments
To : Loleta Chappel <Loleta.Chappel@h-gac.com>, Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>

Rudy,

Per our phone conversation, please see attached HT06-16 contracts for Doggett Freightliner of South Texas, LLC and Houston Freightliner, Inc.

Enjoy your day!

Jennifer Lundy
Contract Specialist
H-GAC Cooperative Purchasing Program
Ph: 832.681.2667
Fx: 713.993.2424
cpcontractfax@h-gac.com

From: Chappel, Loleta
Sent: Thursday, August 18, 2016 4:12 PM
To: Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>
Cc: Lundy, Jennifer <Jennifer.Lundy@h-gac.com>
Subject: RE: HGACBUY FEE SCHEDULE- HGACBuy Pricing HT06-16

Hi Rudy

The person that usually sends this contract information is out so I am forwarding this email to Jennifer Lundy to help you.

Thank You

Loleta Chappel
Procurement Service Specialist
Direct 713-993-2486
Fax 713-993-4548
www.hgacbuy.org
HGACBuy THE SMART PURCHASING SOLUTION

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightliner Inc		

***** Offerer should reference this Invitation's Section-B, subsection 12 *****

(1) Bid each option item on a single, separate line. Inserting additional lines as necessary.

(2) No handwritten entries.

(3) Options should be priced at the differential amount between the Base Unit models' price and the optional (upgrade/downgrade) option.

(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.

	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE

NOTE: On Form E-1, Offeror shall include the specific chassis manufacturer price book options code for every option listed. Offeror shall also include sufficient descriptions so as to distinguish each option from other similar ones. Failure to do above may result in any give pried option being omitted form an awarded contract. This is especially crucial for certain options, such as engines and transmissions (e.g. there may be numerous versions of a given transmission within the same "series" and gear pack (10-sp, 13-sp, etc). If an option description is vague or incomplete in the context of a manufacturer's options "series" then HGAC will assume that the price applies to all options within that series. For example, an Eaton-Fuller upgrade axle option from the chassis manufacturer is coded as "#123-456", but this number covers numerous versions. It is incumbent upon the Offeror to suffienently detail the specifics / distinguish from other priced options, otherwise HGAC will assume the bid price applies to all versions within a series. Options that do not include part codes (or other data called for on this form) may be excluded from an H-GAC contract award. Failure to include a thorough list of priced manufacture options may result in a non-compliant assessment for a given model, or overall (Reference Section-B, subsection 11.0).

Example

	X1 - X5	Meritor	RT46-160	MER-RT46160-DL	46,000# TRA, diff lock	
1	D1-D8	Freightliner	019-001		Trailer Towing Package	854
2	D1-D8	Freightliner	002-002		Tractor Configuration	1,548
3	D1-D8	Donaldson	014-1B5		Air Intake with Donaldson High Capacity Air Cleaner and Safety Element	75
4	D1-D8	Delco Remy	124-1DJ		160 Amp 36-SI Brushless Alternator	128
5	D1-D8	Delco Remy	124-1E1		200 Amp 28-SI Quadramount Alternator	165
6	D1-D8	Delco Remy	124-1E8		240 Amp 28-SI Quadramont Alternator	365
7	D1-D8	Delco Remy	124-1CE		320 Amp 4962PA Pad MT Alternator	752
8	D1-D8	Freightliner	282-042		Mount Batteries 36" - 60" BOC	273
9	D1-D8	Freightliner	293-058		Battery Disconnect MTD LH of Driver Seat	205 ✓
10	D1-D8	Freightliner	293-061		Battery Disconnect MTD LH near Battery Box	205
11	D1-D8	Alliance	292-098	1231	(2) Group 31 12v, 2200 CCA Batteries	29
12	D1-D8	Alliance	292-1EJ	9A31	(2) Absorbed Glass, Group 31 12v, 1850 CCA Batteries	185
13	D1-D8	Alliance	292-058	1031	(3) Group 31 12v, 2280 CCA Batteries	195
14	D1-D8	Alliance	292-1AV	7T31	(3) Group 31 12v, 2100 CCA Batteries	253
15	D1-D8	Alliance	292-1EH	9A31	(3) Absorbed Glass, Group 31 12v 2774 CCA Batteries	391
16	D1-D8	Alliance	292-072	1231	(4) Group 31 12v, 4400 CCA Batteries	521
17	D1-D8	Freightliner	33M-001		Aux Power Net Distrbution Block for Body Builder	354
18	D1-D8	Freightliner	295-026		Positive and Negative Jump Starts	190
19	D1-D8	Eaton	180-049		Ceramic, 2 Plate Stamped Cover Solo Clutch	446
20	D1-D8	Eaton	180-048		Ceramic, 1 Plate Stamped Cover Solo Clutch	168
21	D1-D8	Cummins	128-076		Exhaust Brake	34
22	D1-D8	Jacobs	128-032		Compression Brake	N/C
23	D1-D8	Freightliner	016-1C0		RH outboard Mtd Vertical Aftertreatment System with Topstack	850
24	D1-D8	Freightliner	016-1C2		RH Outboard Under Step Mtd Horizontal aftertreatment with vertical stack	629 ✓
25	D1-D8	Freightliner	016-1DC		RH Outboard Under Step Mtd Horizontal Aftertreatment Device with Horizontal pipe exiting forward of rear wheels	192
26	D1-D8	Freightliner	233-001		Bright Upper Stacks	189
27	D1-D8	Freightliner	23U-002		13 Gallon DEF Tank	80
28	D1-D8	Freightliner	23U-003		23 Gallon DEF Tank	195
29	D1-D8	Freightliner	23Z-002		Alum Diamond Plate DEF Tank Cover	158

FORM E-1: Chassis Manufacturer Options Pricing						Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc						
*** Offerer should reference this Invitation's Section-B, subsection 12 ***							
(1) Bid each option item on a single, separate line. Inserting additional lines as necessary.							
(2) No handwritten entries.							
(3) Options should be priced at the differential amount between the Base Unit models' price and the optional (upgrade/downgrade) option.							
(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.							

	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
30	D1-D8	Freightliner	23Z-001		Polished Alum Diamond Plate DEF Tank Cover	215
31	D1-D8	Freightliner	43X-003		Locate DEF Tank 24-52" Behind Cab	105
32	D1-D8	Horton	237-018		Horton Drivemaster On/off Fan Drive	NC
33	D1-D8	Horton	273-044		Horton EC600 Corsair Engine Fan Drive	265
34	D1-D8	Freightliner	266-027		1000 Sq In Radiator	32
35	D1-D8	Freightliner	266-013		1100 Sq In Radiator	48
36	D1-D8	Philips-Temro	138-010		700 Watt/115 Volt Block Heater	86
37	D1-D8	Philips-Temro	138-011		1000 Watt/115 Volt Block Heater	157
38	D1-D8	Philips-Temro	166-002		150 Watt/115 Volt Oil Preheater	110
39	D1-D8	Delco Remy	155-055		12v 39 MT HD/OCP Starter with Thermal Protection	60
40	D1-D8	Freightliner	353-022		Vehicle Interface Wiring with Body	
41	D1-D8				Builder Connector mtd BOC	69
42	D1-D8	Freightliner	353-023		Vehicle Interface Wiring with Body	
43	D1-D8				Builder Connector mtd EOF	85
44	D1-D8	Freightliner	353-026		Vehicle Interface Wiring and PDM	
45	D1-D8				with Body Builder Connector mtd BOC	725
46	D1-D8	Freightliner	353-027		Vehicle Interface Wiring and PDM	
47	D1-D8				with Body Builder Connector mtd EOF	745
48	D1-D8	Freightliner	34C-001		Electronic Transmission Transmission Access Connector BOC	60
49	D1-D8	Freightliner	34C-002		Electronic Transmission Transmission Access Connector Firewall Mtd	155
50	D1-D8	Freightliner	34C-003		Electronic Transmission Transmission Access Connector End of Frame	164
51	D1-D8	Meritor	373-037	4213X	2 Speed Transfer Case	8,800
52	D1-D8	Meritor	373-038	4210XP	2 Speed Transfer Case	9,757
53	D1-D8	Wabco	490-101		4S?4M ABS with Traction Control	161
54	D1-D8	Wabco	490-107		4S/4M ABS with Traction Control with Hill Start	797
55	D1-D8	Bendix	480-009		AD-9 Air Dryer	290
56	D1-D8	Bendix	480-034		AD-IP Air Dryer	290
57	D1-D8	Bendix	480-047		AD-IS Air Dryer	416
58	D1-D8	Wabco	480-083		SS-1200 Air Dryer	195
59	D1-D8	Freightliner	460-007		Aluminum Air Tanks	208
60	D1-D8	Freightliner	460-058		Steel Air Tanks mtd aft inside and/or below frame	176
61	D1-D8	Bendix	477-003		DV-2 Auto Drain Valve-Wet Tank	85
62	D1-D8	Bendix	477-006		DV-2 Auto Drain Valve-All Air Tanks	91
63	D1-D8	Freightliner	485-001		External Charging Glad Hand	88
64	D1-D8	Freightliner	485-003		Quick Disconnect Fitting w/ Tire Inflator	153
65	D1-D8	Freightliner	481-003		12' Coiled Air and Electric Lines	0
66	D1-D8	Freightliner	30k-015		2-Way HD 150 Amp Receptacle wired Hot, LH Rail BOC	160
67	D1-D8	Freightliner	30k-027		2-Way HD 150 Amp Receptacle wired Hot, LH Rail EOF	190
68	D1-D8	Freightliner	30k-043		1-Way 150 Amp Receptacle wired Hot, LH Rail BOC	202
69	D1-D8	Freightliner	30k-055		1-Way 150 Amp Receptacle wired Hot, LH Rail EOF	163
70	D1-D8	Freightliner	452-004		Driver Controlled Differential Lock (One Axle)	475
71	D1-D8					
72	D1-D8	Freightliner			155-165" Wheelbase	165
73	D1-D8	Freightliner			166-184" Wheelbase	402

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc					
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	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
74	D1-D8	Freightliner			185-205" Wheelbase	656
75	D1-D8	Freightliner			206-230" Wheelbase	812
76	D1-D8	Freightliner			231-254" Wheelbase	1028
77	D1-D8	Freightliner			255-270" Wheelbase	1228
78	D1-D8	Freightliner			271"-299" Wheelbase	1870
79	D1-D8	Freightliner	546-093		11/32x3-7/16x10-3/16" Frame 80KSI	110
80	D1-D8	Freightliner	546-100		11/32x3-1/2x10-3/16" Frame 120KSI	125
81	D1-D8	Freightliner	546-092		11/32x3-1/2x10-5/16" Frame 80KSI	145
82	D1-D8	Freightliner	546-101		11/32x3-1/2x10-5/16" Frame 120KSI	155
83	D1-D8	Freightliner	546-102		7/16x3-9/19x11-1/8" Frame 120KSI	560
84	D1-D8	Freightliner	547-001		1/4" Inner Frame Reinforcement	650
85	D1-D8	Freightliner	549-090		PDI Installed Front Frame Extension	1,150
86	D1-D8	Freightliner	587-003		Rear Tow Hooks	40
87	D1-D8	Freightliner	556-1A4		3 Piece Chromed Steel Bumper with Collapsible Ends & LH/RH Cut Outs for Federal FM100 Speakers	79
88	D1-D8	Freightliner	556-1AP		3 Piece Painted Steel Front Bumper	95
89	D1-D8	Freightliner	556-1CK		3 Piece Chromed Steel Bumper with Air Dam	254
90	D1-D8	Freightliner	556-1AR		3 Piece Chromed Steel Bumper with Collapsible Ends & LH/RH Cut Outs for Federal FM100 Speakers	295
91	D1-D8	Freightliner	558-001		Front Tow Hooks	95
92	D1-D8	Freightliner	551-002		Huck Spin Chassis Fasteners	193
93	D1-D8	Freightliner	583 056		Stainless Steel Quarter Fenders	185
94	D1-D8	Freightliner	583-058		Plastic Quarter Fenders	95
95	D1-D8	Fontaine	578-391	6A36	NO Slack 6000 Series Stationary Fifth Wheel	634
96	D1-D8	Jost	578-1B3	JSK37	Flat Plate Stationary Fifth Wheel	775
97	D1-D8	Jost	578-1CF	JSK37	Air Slide Fifth Wheel	1,132
98	D1-D8	Freightliner	578-192		RH 50 Gallon Fuel Tank	590
99	D1-D8	Freightliner	206-195		RH 60 Gallon Fuel Tank	425
100	D1-D8	Freightliner	206-034		RH 80 Gallon Fuel Tank	545
101	D1-D8	Freightliner	206-194		RH 100 Gallon Fuel Tank	775
102	D1-D8	Freightliner	204-195		LH 60 Gallon Fuel Tank	64
103	D1-D8	Freightliner	204-152		LH 70 Gallon Fuel Tank	129
104	D1-D8	Freightliner	204-034		LH 80 Gallon Fuel Tank	175
105	D1-D8	Freightliner	204-194		LH 100 Gallon Fuel Tank	375
106	D1-D8	Freightliner	203-006		60 Gallon Hydraulic Reservoir	504
107	D1-D8	Freightliner	205-003		Locking Fuel Cap	43
108	D1-D8	Instaheat	220-048		Fuel Heater	441
109	D1-D8	Alliance	122-077		Fuel/Water Separator with Heated Bowl and Primer Pump	84
110	D1-D8	Alliance	122-076		Fuel/Water Separator with Heated Bowl	11
111	D1-D8	Alliance	122-084		Fuel/Water Separator with Heated Bowl, Primer Pump and Indicator Lamp	44
112	D1-D8	Davco	122-101	382F	Fuel/Water Separator w/Thermatic Control	301
113	D1-D8	Davco	122-1F8	243	Fuel/Water Separator	215
114	D1-D8	Davco	122-1F9	243	Fuel/Water Separator with Heater	249
115	D1-D8	Davco	122-1G0	243	Fuel/Water Separator with ESOC	277
116	D1-D8	Freightliner	20E-001		Aux Fuel Supply and Return Ports	57
117	D1-D8	Freightliner	221-001		Fuel Cooler	184

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc					
*** Offerer should reference this Invitation's Section-B, subsection 12 ***						
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118	D1-D8	Freightliner	829-075		132" High Roof Extended Cab	4,253
119	D1-D8	Freightliner	829-079		154" High Roof Crew Cab	7,591
120	D1-D8	Freightliner	682-050		Walk Thru Opening BOC	457
121	D1-D8	Freightliner	784-001		Brackets only for Airshield Roof Deflector	323
122	D1-D8	Freightliner	784-032		Airshield Roof Deflector Not Installed	382
123	D1-D8	Freightliner	650-003		Leaf Spring Rear Cab Suspension	186
124	D1-D8	Freightliner	650-008		Air Cab Mounts	118
125	D1-D8	Freightliner	648-002		Nonremoveable Bugscreen behind grille	46
126	D1-D8	Freightliner	648-001		Front Removable Bug Screen	67
127	D1-D8	Freightliner	754-008		2-1/2" Fender Extensions	215
128	D1-D8	Freightliner	678-001		LH/RH Cab Grab Handles	57
129	D1-D8	Freightliner	678-018		LH/RH Cab Grab Handles w/ Inserts	131
130	D1-D8	Freightliner	646-023		Hood Mounted Chrome Grille	83
131	D1-D8	Freightliner	646-011		Stationary Grille	245
132	D1-D8	Freightliner	727-1AF		Single Air Horn Under Cab	75
133	D1-D8	Freightliner	727-1AH		Single 14" Air Horn Roof Mtd	105
134	D1-D8	Freightliner	727-1AM		Dual 24" Air Horns Roof Mtd	120
135	D1-D8	Freightliner	727-180		Dual 25" Stutter Tone Hood Mtd Air Horns	353
136	D1-D8	Freightliner	657-1A0		All Locks Keyed Alike	27
137	D1-D8	Freightliner	327-1AA		PDI Installed Pre Wire PKG for Light Bar	675
138	D1-D8	Freightliner	302-047		LED Marker Lights	29
139	D1-D8	Freightliner	315-058		Amber Fog Lights	90
140	D1-D8	Freightliner	315-061		Clear Fog Lights	80
141	D1-D8	Freightliner	311-001		Daytime Running Lights	23
142	D1-D8	Freightliner	294-042		LED Stop/Tail/ Backup Lights	95
143	D1-D8	Freightliner	744-1BN		Dual West Coast Bright Mirrors	67
144	D1-D8	Freightliner	744-1BC		Dual West Coast Bright Mirrors with LH and RH Remote	224
145	D1-D8	Freightliner	744-1BM		Dual West Coast Bright Finish Heated Mirrors	183
146	D1-D8	Freightliner	743-1AP		LH/RH 8" Convex Molded In Color Mirrors	13
147	D1-D8	Freightliner	74A-001		RH Downview Mirror	38
148	D1-D8	Sure Plus	74B-080		LH/RH 8" Bright Convex Fender Mirrors	117
149	D1-D8	Freightliner	677-016		Dual Level Cab Entry Steps, Both Sides	228
150	D1-D8	Freightliner	764-010		Front Sun Visor	187
151	D1-D8	Freightliner	764-018		Bright Front Sun Visor	409
152	D1-D8	Freightliner	654-011		LH/RH Electric Windows	147
153	D1-D8	Freightliner	769-002		Lower RH Door with Fresnel Lens	194
154	D1-D8	Freightliner	706-026		Aluminum Kick Panels LH Side	19
155	D1-D8	Freightliner	708-026		Aluminum Kick Panels RH Side	19
156	D1-D8	Freightliner	696-015		Center Storage Console	19
157	D1-D8					
158	D1-D8					
159	D1-D8	Freightliner	696-006		Between Seat File/Desk Storage	390
160	D1-D8	Freightliner	720-002		2 1/2 lb Fire Extinguisher	38
161	D1-D8	Freightliner	720-003		5 lb Fire Extinguisher	59
162	D1-D8	Freightliner	700-002		Air Conditioner	850
163	D1-D8	Freightliner	170-045		Std Heater Plumbing with Ball Shut Off Valves at Supply Line	25

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
Offeror Name:	Houston Freightliner Inc					
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	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
164	D1-D8	Freightliner	739-028		Extreme Cab Insulation	62
165	D1-D8	Freightliner	324-074		LH/RH Door Activated Dome Lite with 3-Way Switch	82
166	D1-D8	Freightliner	324-1AJ		LH/RH Door Activated Dome Lite with Reading Lites and Courtesy Lites	138
167	D1-D8	Freightliner	655-005		LH/RH Electric Door Locks	71
168	D1-D8	Freightliner	284-023		12v Power Supply in Dash	14
169	D1-D8	Freightliner	284-045		(2) 12v Power Receptacles in Dash	48
170	D1-D8	Freightliner	722-002		Triangle Reflectors without Flares	18
171	D1-D8	Seats Inc	756-1J3	910	Basic HighBack Air Driver Seat	165
172	D1-D8	Freightliner	756-155		Full Width Bench Seat w/ Folding Back	N/C
173		Seats Inc	756-1D9		Premium High Back Driver Seat	200
174	D1-D8	National	756-167	2000	2000 Series Easy-Aire Driver Seat	175
175	D1-D8	Freightliner	760-235		2 Man Passenger Seat	178
176	D1-D8	Seats Inc	760-1J2		Basic High Back Air Susp Pass Seat	165
177	D1-D8	Seats Inc	760-1DC	910	Basic Air Pasesenger Seat	N/C
178	D1-D8	Seats Inc	760-1D9		Premium High Back Passenger Seat	300
179	D1-D8	Freightliner	762-239		(2) Fold Up Forward Facing Rear Seats	25
180	D1-D8	Freightliner	762-155		Full Rear Bench Seat	291
181	D1-D8	Freightliner	758-014		Black Cordura Plus Dr Seat Cover	18
182	D1-D8	Freightliner	761-014		Black Cordura Plus Pass Seat Cover	18
183	D1-D8	Freightliner	755-014		Black Cordura Plus RR Seat Cover	18
184	D1-D8	Freightliner	763-012		Orange Visibility Seat Belts	25
185	D1-D8	Freightliner	532-002		Adjustable Steering Column	376
186	D1-D8	Freightliner	198-003		Dash Mtd Air Restriction Indicator	17
187	D1-D8	Preco	721-001		Back Up Alarm	60
188	D1-D8	Preco	721-003		Self Adjusting Back Up Alarm	109
189	D1-D8	Freightliner	33A-802		Wiring Provision for Cust Furnished Strobe Light	150
190	D1-D8	Stemco	438-001		Mechanical Hubobometer	68
191	D1-D8	Freightliner	679-001		Overhead Instrument Panel	47
192	D1-D8	Delphi	746-181		AM/FM/WB Sirius Premium Radio	525
193	D1-D8	Freightliner	746-1B3		AM/FM/WB Radio with Bluetooth Microphone Radio	225
194	D1-D8	Freightliner	746-1A1		AM/FM/WB CD/MP3 Premium Radio	375
195	D1-D8	Freightliner	812-001		Electronic 3000 RPM Tachometer	62
196	D1-D8	Meritor	498-004		Enhanced Stability Control	850
197	D1-D8	Freightliner	3229-007		One Aux Rocker Switch on Dash	65
198	D1-D8	Goodyear	093-0KR		11R22.5 14 Ply G282 FR Tires	102
199	D1-D8	Michelin	093-1AX		11R22.5 16 Ply XZE2 FR Tires	259
200	D1-D8	Continental	093-1P2		11R22.5 14 Ply HSL2 FR Tires	38
201	D1-D8	Goodyear	093-1GA		11R22.5 16 Ply G399 FR Tires	125
202	D1-D8	Goodyear	093-1KR		11R22.5 16 Ply G282 MSD Fr Tires	191
203	D1-D8	Michelin	093-0DJ		11R22.5 16 Ply XDE M/S FR Tires	243
204	D1-D8	Michelin	093-2CC		315/80R22.5 20 Ply XZU-S2 FR Tires	623
205	D1-D8	Michelin	093-0TA		385/65R22.5 18 Ply XZY-3 Fr Tires	700
206	D1-D8	Michelin	093-1E2		425/65R22.5 Michelin XZY	471
207	D1-D8	Goodyear	094-1DG		11R22.5 14 Ply G338 RR Tires	179
208	D1-D8	Michelin	094-0DH		11R22.5 14 Ply XDE M/S RR Tires	255
209	D1-D8	Goodyear	094-0VE		11R22.5 16 PLY G288 RR Tires	257

FORM E-1: Chassis Manufacturer Options Pricing						Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc						
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	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
210	D1-D8	Michelin	094-0DJ		11R22.5 XDE- MS RR Tires	320
211	D1-D8	Michelin	094-0TD		315/80R22.5 20 Ply XZU-3 RR Tires	778
212	D1-D8	Michelin	094-2CC		315/80R22.5 20 Ply XZU-S2 RR Tires	3,258
213	D1-D8	Freightliner	549-048		24" Front Frame Extension w/ Insert	173
	D1-D11				Specially Manufactured Body per Customer Specifications NOT listed in Body Option Section	Sold at Cost
214	D1	Cummins	101-2NT		ISB 250 HP 660 LB FT TQ	1,089
215	D1	Cummins	101-2RJ		ISB 260 HP 660 LB FT TQ	1,983
216	D1	Cummins	101-2N6		ISB 280 HP 660 LB FT TQ	2,621
217	D1	Cummins	101-2N7		ISB 300 HP 660 LB FT TQ	3,377
218	D1	Cummins	101-2N8		ISB 325 HP 750 LB FT TQ	4,758
219	D1	Cummins	101-2XG		ISL 260 HP 660 LB FT TQ	6,474
220	D1	Cummins	101-2XF		ISL 270 HP 660 LB FT TQ	7,113
221	D1	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	7,751
222	D1	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	8,856
223	D1	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	11,353
224	D1	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	9,144
225	D1	Eaton	342-1P8	FO-5406B DM	6 Speed UltraShift Transmission	1,687
226	D1	Eaton	342-1P9	FO-6406B DM	6 Speed UltraShift Transmission	3,225
227	D1	Allison	342-1MG		2500 RDS Auto Transmission	2,661
228	D1	Allison	342-582		3000 RDS Auto Transmission	7,098
229	D1	Allison	342-584		3500 RDS Auto Transmission	7,146
230	D1	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
231	D1	Detroit	400-1A8	DAF-14-3.4	14,700 LB Front Axle	621
232	D1	Detroit	400-1A9	DAF-16.0.5	16,000 LB Front Axle	1,400
233	D1	Freightliner	620-010		14,600 LB Front Suspension	382
234	D1	Freightliner	400-1BA	DAF 18.0.5	18,000 LB Front Axle	2,013
235	D1	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
236	D1	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
237	D1	Freightliner	620-026		16,000 LB Front Suspension	504
238	D1	Meritor	420-051	RS-23-160	23,000 LB Rear Axle	510
239	D1	Meritor	420-022	RS-26-185	26,000 LB Rear Axle	4,020
240	D1	Meritor	420-024	RS-30-185	30,000 LB Rear Axle	4,478
241	D1	Freightliner	622-1MH		23,000 LB Multi-Leaf Rear Suspension	1,285
242	D1	Freightliner	622-001		23,000 LB FlatLeaf Rear Suspension	948
243	D1	Freightliner	622-284		Airliner 21,000 Rear Suspension	1,301
244	D1	Freightliner	622-216		Airliner 23,000 Rear Suspension	1,620
245	D1	Freightliner	622-1DB		30,000 LB Rear Suspension	1,265
246	D1	Freightliner	452-004		Driver Controlled Differential Lock (One Axle)	475
247	D2	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	638
248	D2	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	1,742
249	D2	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	4,240
250	D2	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	2,030

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
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	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
251	D2	Eaton	342-443		RO-11908LL 10 Speed Trans	1,917
252	D2	Allison	342-582		3000 RDS Auto Transmission	6,146
253	D2	Allison	342-584		3500 RDS Auto Transmission	6,091
254	D2	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
255	D2	Detroit	400-1A8	AF-14-3.4	14,700 LB Front Axle	621
256	D2	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
257	D2	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
258	D2	Freightliner	620-010		14,600 LB Front Suspension	382
259	D2	Detroit	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,400
260	D2	Detroit	400-1BA	AF-18.0-5	18,000 LB Front Axle	2,013
261	D2	Freightliner	620-013		18,000 LB Front Suspension	492
262	D2	Freightliner	620-004		16,000 LB Flatleaf Front Suspension	504
263	D2	Detroit	400-1BB	DA-F-20.0-05	20,000 LB Front Axle	3,325
264	D2	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	1,880
265	D2	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
266	D2	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
267	D2	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
268	D2	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
269	D2	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513
270	D2	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906
271	D2	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
272	D2	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
273	D2	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
274	D3	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	(8)
275	D3	Detroit	101-2TJ	DD13	380 HP Multi TQ 1235/1550 LB FT	401
276	D3	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	329
277	D3	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	473
278	D3	Detroit	101-2T0	DD13	450 HP 1550 LB FT TQ	643
279	D3	Cummins	101-2KA	ISL-G	260 HP 660 LB FT TQ CNG Engine	13,219
280	D3	Cummins	101-2J8	ISL-G	300 HP 860 LB FT TQ CNG Engine	14,577
281	D3	Cummins	101-2J7	ISL-G	320 HP 1000 LB FT TQ CNG Engine	15,030
282	D3	Cummins	101-2NO	ISL	345 HP 1150 LB FT TQ	(4,494)
283	D3	Cummins	101-2XN	ISL	370 HP 1250 LB FT TQ	(3,591)
284	D3	Cummins	101-2XP	ISL	380 HP 1250 LB FT TQ	(3,253)
285	D3	Eaton	342-412		FR-14210B 10 Speed Transmission	225
286	D3	Eaton	342-416		FR-15210B 10 Speed Transmission	1,057
287	D3	Eaton	342-419		FR-16210C 10 Speed Transmission	1,129
288	D3	Eaton	342-444		RTO-14908LL 10 Speed Trans	2,376
289	D3	Eaton	342-445		RTO-16908LL 10 Speed Trans	2,650
290	D3	Eaton	342-1BM		RTLO-16913A 13 Speed Trans	3,486
291	D3	Allison	342-584		3500 RDS Automatic Trans	7,306
292	D3	Allison	342-582		3000 RDS Automatic Trans	7,306
293	D3	Allison	342-1M1		4000 RDS Automatic Trans	16,047
294	D3	Allison	342-1M3		4500 RDS Automatic Trans	16,958 ✓
295	D3	Alliance	400-1A8	AF-14-3.4	14,700 LB Front Axle	678

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296	D3	Freightliner	620-010		14,600 LB Taperleaf Front Suspension	348
297	D3	Freightliner	620-003		14,600 LB Flatleaf Front Suspension	315
298	D3	Alliance	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,374
299	D3	Freightliner	620-026		16,000 LB Front Suspension	828
300	D3	Alliance	400-1BA	AF-18.0-5	18,000 LB Front Axle	1,681
301	D3	Freightliner	620-013		18,000 LB Front Suspension	1,028
302	D3	Alliance	620-1BB	AF-20.0-5	20,000 LB Front Axle	2,483 ✓
303	D3	Freightliner	620-025		20,000 LB Front Suspension (with 20k Front Axle)	1,085 ✓
304	D3	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	2,726 ✓
305	D3	Meritor	420-051	RS-23-160	23,000 LB Rear Axle	(6,963)
306	D3	Meritor	420-022	RS-26-185	26,000 LB Rear Axle	(3,641)
307	D3	Meritor	420-024	RS-30-185	30,000 LB Rear Axle	(2,875)
308	D3	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
309	D3	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
310	D3	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
311	D3	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
312	D3	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513
313	D3	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906 ✓
314	D3	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
315	D3	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
316	D3	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
317	D3	Freightliner	230-064		60 Diesel Equivalent Gallon CNG Tank	30,008
318	D3	Freightliner	230-063		75 Diesel Equivalent Gallon CNG Tank	33,465
319	D3	Hendrickson	035-1A1	SC120	20,000 LB Composilite Steerable Pusher Axle	8,170
320	D3	Hendrickson	035-024	HLM 20	13,200 LB Non Steerable Pusher Axle	5,953
321	D3	Hendrickson	035-1A0	SC13	13,200 LB Composilite Steerable Pusher Axle	5,991
322	D3	Freightliner	220-008		LNG fuel Heater/Vaporizer	5,249
323	D4	Freightliner	002-003		Trailer Towing Package at EOF	701
324	D4	Detroit	101-2TW	DD13	350 HP 1350 LB FT TQ	(3,013)
325	D4	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	(3,022)
326	D4	Detroit	101-2TX	DD13	380 HP 1350 LB FT TQ	(2,756)
327	D4	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	(2,684)
328	D4	Detroit	101-2TJ	DD13	380 HP Multi TQ 1350/1550	(2,612)
329	D4	Detroit	101-2TY	DD13	410 HP 1450 LB FT TQ	(2,612)
330	D4	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	(2,540)
331	D4	Detroit	101-2TG	DD13	410 HP 1650 LB FT TQ	(2,468)
332	D4	Detroit	101-2TK	DD13	410 HP Multi TQ 1450/1650	(2,468)
333	D4	Detroit	101-2TF	DD13	435 HP 1550 LB FT TQ	(2,432)
334	D4	Detroit	101-2T0	DD13	450 HP 1550 LB FT TQ	(2,369)
335	D4	Detroit	101-2T1	DD13	450 HP 1650 LB FT TQ	(2,167)
336	D4	Detroit	101-2V8	DD15	455HP 1650 LB FT TQ	419
337	D4	Detroit	101-2WB	DD15	455 HP Multi TQ 1550/1750	478
338	D4	Detroit	101-2V9	DD15	475HP 1650 LB FT TQ	478
339	D4	Detroit	101-2WC	DD15	475/505 HP Multi TQ 1650	717

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340	D4	Detroit	101-2V1	DD15	505 HP 1550/1750 LB FT TQ	550
341	D4	Detroit	101-2WA	DD15	505 HP 1650 LB FT TQ	550
342	D4	Detroit	101-2WH	ISX	425 HP 1650 LB FT TQ	592
343	D4	Detroit	101-2WM	ISX	450 HP 1550 LB FT TQ	675
344	D4	Detroit	101-2WW	ISX	485 HP 1650 LB FT TQ	1,128
345	D4	Detroit	101-2W0	ISX	500 HP 1650 LB FT TQ	1,581
346	D4	Detroit	292-1E4	8A31	(4) Glass Mat Batteries	305
347	D4	Eaton	180-094		15 1/2" Ceramic Solo VCTPlus Adjustment Free Clutch	261
348	D4	Freightliner	293-058		Positive Load Battery Disconnect In Cab	157
349	D4	Freightliner	23Z-002		Non Polished DEF Tank Cover	162
350	D4	Freightliner	23U-003		23 Gal DEF Tank	101
351	D4	Horton	273-018		Drivemaster on/off Fan Drive	40
352	D4	Philips Temro	138-041		1500 Watt/115 Volt Block Heater	115
353	D4	Fuller	342-1YB		FO-16E313A-VHP Ultrashift Plus	8,606
354	D4	Fuller	342-1Y7		FO-16E310C-VAS Ultrashift Plus	7,167
355	D4	Fuller	342-445		RTO-16908LL 10 Speed	2,042
356	D4	Allison	342-1M1		4000 RDS Auto Trans	15,324
357	D4	Allison	342-1M3		4500 RDS Auto Trans	16,314
358	D4	Meritor	400-099	MFS-14-143A	14700 LB Front Axle	797
359	D4	Freightliner	620-021		14000 LB Front Suspension	358
360	D4	Freightliner	400-1A9	AF-16.0-05	16,000 LB Front Axle	1,578
361	D4	Freightliner	620-026		16,000 LB Taperleaf Front Suspension	502
362	D4	Freightliner	400-1BA	DA-F-18.8-05	18,000 LB Front Axle	1,725
363	D4	Freightliner	620-013		18,000 LB Taperleaf Front Suspension	668
364	D4	Freightliner	400-1BB	DA-F-20.0-5	20,000 LB Front Axle	2,440
365	D4	Freightliner	620-025		20,000 LB Taperleaf Front Suspension	728
366	D4	Meritor	420-074	RT-40-160	40,000 LB Rear Axle	3,050
367	D4	Meritor	420-162	RT-40-145A	40,000 LB Rear Axle with Aluminum Carrier	570
368	D4	Meritor	420-075	RT-40-160P	40,000 LB Rear Axle with Pump	3,278
369	D4	Detroit	420-1GT	ART-44.0-4	44,000 LB Rear Axle	770
370	D4	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	2,831
371	D4	Meritor	420-111	RT-46-160P	46,000 LB Rear Axle with Pump	3,073
372	D4	Meritor	420-051	RS-23-160	23,000 LB Single rear Axle	(6,757)
373	D4	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
374	D4	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
375	D4	Detroit	386-044	RPL25	HD Main Driveline	227
376	D4	Detroit	452-006		Driver Controlled Traction Differential- Both Axles	905
377	D4	Detroit	425-002		Rear Brake Dust Shields	76
378	D4	Detroit	622-218		40,000 LB HD Air Suspension	260
379	D4	Detroit	622-108		46,000 LB Air Suspension	665
380	D4	Detroit	622-216		23,000 LB Air Suspension	0
381	D4	Detroit	490-101		4S/4M ABS with Hill Start and Traction Control	765
382	D4	Detroit	490-035		6S/6M ABS with Hill Start and Traction Control	1,064
383	D4	Detroit	480-009		AD-9 Air Dryer	37
384	D4	Detroit	480-047		AD-IS Air Dryer	135
385	D4	Detroit	460-007		Aluminum Air Tanks	356
386	D4	Detroit	914-002		Trailer Connections at EOF	158

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc					
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(2) No handwritten entries.						
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(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.						

	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
387	D4	Detroit	546-093		11/32x3-1/2x10-3/16" Frame 80KSI	180
388	D4	Detroit	546-100		11/32x3-1/2x10-3/16" Frame 120KSI	198
389	D4	Detroit	546-101		11/32x3-1/2x10-5/16" Frame 120KSI	457
390	D4	Detroit	546-102		7/16x3-9/19x11-1/8" Frame 120KSI	934
391	D4	Detroit	547-001		1/4" Inner Frame Reinforcement	850
392	D4	Detroit	585-1AJ	B-7	Stainless Steel Mudflap Brackets	48
393	D4	Detroit	583-057		Stainless Steel Quarter Fenders	150
394	D4	Detroit	583-058		Plastic Quarter Fenders	77
395	D4	Detroit	602-076		28" Locking Toolbox	569
396	D4	Detroit	206-158		120 Gallon Fuel Tank RH Side	205
397	D4	Detroit	206-162		150 Gallon Fuel Tank RH Side	252
398	D4	Detroit	204-158		120 Gallon Fuel Tank lH Side	168
399	D4	Detroit	204-162		150 Gallon Fuel Tank lH Side	378
400	D4	Alliance	122-078		Fuel/Water Separator with Indicator Light	95
401	D4	Alliance	122-079		Fuel/Water Separator with Heated Bowl and Indicator Lamp	186
402	D4	Alliance	122-084		Fuel/Water Separator with Heated Bowl, Primer Pump and Indicator Lamp	226
403	D4	Davco	122-1F1		482 Fuel/Water Separator	375
404	D4	Davco	122-1F2		482 Fuel/Water Separator w/Pre Heater	507
405	D4	Goodyear	093-2AU	LHS	11R24.5 FR Tires	162
406	D4	Goodyear	094-1U5	661	11R24.5 FR Tires	128
407	D4	Goodyear	094-0WF	G182	11R24.5 RR Tires	375
408	D4	Goodyear	094-2AU	G399	11R24.5 RR Tires	650
409	D4	Michelin	094-0RD	XZY-3	11R24.5 RR Tires	1,802
410	D4	Accuride	502-1EH	98367	22.5x8.25 Aluminum FR Wheels	352
411	D4	Accuride	505-1EF	88367	22.5x8.25 Aluminum RR Wheels	1,123
412	D4	Accuride	502-333	29362	24.5x8.25 Aluminum FR Wheels	338
413	D4	Accuride	505-333	29362	24.5x8.25 Aluminum RR Wheels	1,353
414	D4	Freightliner	727-066		Dual 26" Air Horns	98
415	D4	Freightliner	294-086		LED Stop/Tail/Turn Lights	63
416	D4	Freightliner	744-1C6		Dual Bright Mirrors with LH/RH Remote	78
417	D4	Detroit	764-016		Exterior Sun Visor	165
418	D4	Detroit	720-002		2 1/2 lb Fire Extinguisher	45
419	D4	Detroit	720-003		5 lb Fire Extinguisher	56
420	D4	Detroit	655-005		Electric Door Locks	64
421	D4	Detroit	746-1AN		AM/FM/WB Sirius Premium Radio	546
422	D4	Detroit	746-1AF		AM/FM Radio	227
423	D4	Detroit	746-1AG		AM/FM/WB CD/MP3 Premium Radio	374
424	D5	Cummins	101-2N3		ISB 220 HP 520 LB FT TQ	696
425	D5	Cummins	101-2GD		ISB 240 HP 560 LB FT TQ	1,246
426	D5	Cummins	101-2NT		ISB 250 HP 660 LB FT TQ	2,047
427	D5	Cummins	101-2RJ		ISB 260 HP 660 LB FT TQ	2,807
428	D5	Cummins	101-2N6		ISB 280 HP 660 LB FT TQ	3,568
429	D5	Cummins	101-2N7		ISB 300 HP 660 LB FT	4,125

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
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	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
430	D5	Cummins	101-2N8		ISB 325 HP 660 LB FT TQ	5,210
431	D5	Cummins	101-2XG		ISL 260 HP 720 LB FT TQ	7,755
432	D5	Cummins	101-2XF		ISL 270 HP 800 LB FT TQ	8,229
433	D5	Cummins	101-2XE		ISL 300 HP 860 LB FT TQ	8,893
434	D5	Eaton	342-1CA	FS-5406A	6 Speed Manual Transmission	785
435	D5	Eaton	342-1P9	FO-6406B DM	6 Speed UltraShift Transmission	3,059
436	D5	Allison	342-1MG		2500 RDS Auto Transmission	2,661
437	D5	Allison	342-582		3000 RDS Auto Transmission	7,098
438	D5	Allison	342-584		3500 RDS Auto Transmission	7,146
439	D5	Freightliner	018-002		Air Brakes	824
440	D6	Cummins	101-2NT		ISB 250 HP 660 LB FT TQ	1,089
441	D6	Cummins	101-2RJ		ISB 260 HP 660 LB FT TQ	1,983
442	D6	Cummins	101-2N6		ISB 280 HP 660 LB FT TQ	2,621
443	D6	Cummins	101-2N7		ISB 300 HP 660 LB FT TQ	3,377
444	D6	Cummins	101-2N8		ISB 325 HP 750 LB FT TQ	4,758
445	D6	Cummins	101-2XG		ISL 260 HP 660 LB FT TQ	6,474
446	D6	Cummins	101-2XF		ISL 270 HP 660 LB FT TQ	7,113
447	D6	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	7,751
448	D6	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	8,856
449	D6	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	11,353
450	D6	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	9,144
451	D6	Eaton	342-1P8	FO-5406B DM	6 Speed UltraShift Transmission	1,687
452	D6	Eaton	342-1P9	FO-6406B DM	6 Speed UltraShift Transmission	3,225
453	D6	Allison	342-1MG		2500 RDS Auto Transmission	2,661
454	D6	Allison	342-582		3000 RDS Auto Transmission	7,098
455	D6	Allison	342-584		3500 RDS Auto Transmission	7,146
456	D6	Allison	342-1KD		3000 EVS Auto Transmission	8,351
457	D6	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
458	D6	Detroit	400-1A8	DAF-14-3.4	14,700 LB Front Axle	621
459	D6	Detroit	400-1A9	DAF-16.0.5	16,000 LB Front Axle	1,400
460	D6	Freightliner	620-010		14,600 LB Front Suspension	382
461	D6	Freightliner	400-1BA	DAF 18.0.5	18,000 LB Front Axle	2,013
462	D6	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
463	D6	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
464	D6	Freightliner	620-026		16,000 LB Front Suspension	504
465	D6	Meritor	420-051	RS-23-160	23,000 LB Rear Axle	510
466	D6	Meritor	420-022	RS-26-185	26,000 LB Rear Axle	4,020
467	D6	Meritor	420-024	RS-30-185	30,000 LB Rear Axle	4,478
468	D6	Freightliner	622-1MH		23,000 LB Multi-Leaf Rear Suspension	1,285
469	D6	Freightliner	622-001		23,000 LB FlatLeaf Rear Suspension	948
470	D6	Freightliner	622-284		Airliner 21,000 Rear Suspension	1,301
471	D6	Freightliner	622-216		Airliner 23,000 Rear Suspension	1,620
472	D6	Freightliner	622-1DB		30,00 LB Rear Suspension	1,265
473	D6	Freightliner	452-004		Driver Controlled Differential Lock (One Axle)	475

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
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	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
474	D7	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	638
475	D7	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	1,742
476	D7	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	4,240
477	D7	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	2,030
478	D7	Eaton	342-443		RO-11908LL 10 Speed Trans	1,917
479	D7	Allison	342-582		3000 RDS Auto Transmission	6,146
480	D7	Allison	342-584		3500 RDS Auto Transmission	6,091
481	D7	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
482	D7	Detroit	400-1A8	AF-14-3.4	14,700 LB Front Axle	621
483	D7	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
484	D7	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
485	D7	Freightliner	620-010		14,600 LB Front Suspension	382
486	D7	Detroit	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,400
487	D7	Detroit	400-1BA	AF-18.0-5	18,000 LB Front Axle	2,013
488	D7	Freightliner	620-013		18,000 LB Front Suspension	492
489	D7	Freightliner	620-004		16,000 LB Flatleaf Front Suspension	504
490	D7	Detroit	400-1BB	DA-F-20.0-05	20,000 LB Front Axle	3,325
491	D7	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	1,880
492	D7	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
493	D7	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
494	D7	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
495	D7	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
496	D7	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513
497	D7	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906
498	D7	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
499	D7	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
500	D7	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
501	D8	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	NC
502	D8	Detroit	101-2TX	DD13	380 HP 1350 LB FT TQ	257
503	D8	Detroit	101-2TJ	DD13	380 HP Multi TQ 1235/1550 LB FT	401
504	D8	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	329
505	D8	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	475
506	D8	Detroit	101-2TF	DD13	435 HP 1550 LB FT TQ	581
507	D8	Detroit	101-2T0	DD13	450 HP 1550 LB FT TQ	643
508	D8	Detroit	101-2TI	DD13	450 HP 1650 LB FT TQ	845
509	D8	Detroit	101-2TI	DD13	470 HP 1650 LB FT TQ	1,110
510	D8	Cummins	101-2J8	ISL-G	300 HP 860 LB FT TQ CNG Engine	14,577
511	D8	Cummins	101-2J8	ISL-G	320 HP 1000 LB FT TQ CNG Engine	15,030
512	D8	Cummins	101-2NO	ISL	345 HP 1150 LB FT TQ	(4,494)
513	D8	Cummins	101-2NX	ISL	380 HP 1300 LB FT TQ	(5,777)
514	D8	Cummins	101-2U5	ISL	370 HP 1250 LB FT TQ	(3,591)
515	D8	Eaton	342-412		FR-14210B 10 Speed Transmission	694

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
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516	D8	Eaton	342-416		FR-15210B 10 Speed Transmission	1,057
517	D8	Eaton	342-419		FR-16210C 10 Speed Transmission	1,129
518	D8	Eaton	342-443		RTO-11908LL 10 Speed Trans	1,280
519	D8	Eaton	342-444		RTO-14908LL 10 Speed Trans	2,345
520	D8	Eaton	342-445		RTO-16908LL 10 Speed Trans	2,950
521	D8	Eaton	342-1BM		RTLO-16913A 13 Speed Trans	3,438
522	D8	Allison	342-582		3000 RDS Automatic Trans	6,649
523	D8	Allison	342-584		3500 RDS Automatic Trans	5,760
524	D8	Allison	342-1M1		4000 RDS Automatic Trans	16,133
525	D8	Allison	342-1M3		4500 RDS Automatic Trans	16,763
526	D8	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
527	D8	Detroit	400-1A8	AF-14-3.4	14,700 LB Front Axle	621
528	D8	Freightliner	620-010		14,600 LB Front Suspension	382
529	D8	Detroit	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,400
530	D8	Detroit	400-1BA	AF-18.0-5	18,000 LB Front Axle	2,013
531	D8	Freightliner	620-013		18,000 LB Front Suspension	492
532	D8	Freightliner	620-004		16,000 LB Flatleaf Front Suspension	504
533	D8	Detroit	400-1BB	DA-F-20.0-05	20,000 LB Front Axle	3,325
534	D8	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	1,880
535	D8	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
536	D8	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
537	D8	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
538	D8	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
539	D8	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513
540	D8	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906
541	D8	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
542	D8	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
543	D8	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
544	D8	Freightliner	230-064		60 Diesel Equivalent Gallon CNG Tank	30,008
545	D8	Freightliner	230-063		75 Diesel Equivalent Gallon CNG Tank	33,465
546	D8	Hendrickson	035-1A1	SC120	20,000 LB Composilite Steerable Pusher Axle	8,170
547	D8	Hendrickson	035-024	HLM 20	13,200 LB Non Steerable Pusher Axle	5,953
548	D8	Hendrickson	035-1A0	SC13	13,200 LB Composilite Steerable Pusher Axle	5,991
						0
549	D9	Detroit	101-2TW	DD13	350 HP 1350 LB FT TQ	(569)
550	D9	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	(578)
551	D9	Detroit	101-2TX	DD13	380 HP 1350 LB FT TQ	(342)
552	D9	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	(278)
553	D9	Detroit	101-2TJ	DD13	380 HP Multi TQ 1350/1550	(214)
554	D9	Detroit	101-2TY	DD13	410 HP 1450 LB FT TQ	(214)
555	D9	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	(151)
556	D9	Detroit	101-2TG	DD13	410 HP 1650 LB FT TQ	(87)
557	D9	Detroit	101-2TK	DD13	410 HP Multi TQ 1450/1650	(87)

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558	D9	Detroit	101-2TF	DD13	435 HP 1550 LB FT TQ	(55)
559	D9	Detroit	101-2T1	DD13	450 HP 1650 LB FT TQ	178
560	D9	Cummins	101-2UA	ISX12	330 HP 1350 LB FT TQ	(3,948)
561	D9	Cummins	101-2UD	ISX12	350 HP 1350/1450 LB FT TQ	(3,740)
562	D9	Cummins	101-2N9	ISX12	370 HP 1450 LB FT TQ	(3,645)
563	D9	Cummins	101-2UE	ISX12	400 HP 1650 LB FT TQ	(3,453)
564	D9	Cummins	101-2UG	ISX12	425 HP 1650 LB FT TQ	(3,422)
565	D9	Alliance	292-1E4	8A31	(4) Glass Mat Batteries	468
566	D9	Eaton	180-094		15 1/2" Ceramic Solo VCTPlus Adjustment Free Clutch	261
567	D9	Freightliner	293-058		Positive Load Battery Disconnect In Cab	157
568	D9	Freightliner	23Z-002		Non Polished DEF Tank Cover	162
569	D9	Freightliner	23U-003		23 Gal DEF Tank	101
570	D9	Horton	273-018		Drivemaster on/off Fan Drive	40
571	D9	Philips Temro	138-041		1500 Watt/115 Volt Block Heater	115
572	D9	Eaton	342-1V2		FM-15E310B LAS 10 Speed ULTRASHIFT Transmission	6,444
573	D9	Eaton	342-1V4		FM-14E310C LAS 10 Speed ULTRASHIFT Transmission	5,750
574	D9	Eaton	342-1U5		FM-16E310C LAS 10 Speed ULTRASHIFT Transmission	6,950
575	D9	Allison	342-1MY		4000 HS Auto Trans	15,578
576	D9	Allison	342-1M1		4000 RDS Auto Trans	15,732
577	D9	Allison	342-1M3		4500 RDS Auto Trans	16,678
578	D9	Detroit	400-1A8	AF-14.7-3	14700 LB Front Axle	549
579	D9	Meritor	400-099	MFS-14-143A	14700 LB Front Axle	688
580	D9	Freightliner	620-021		14000 LB Front Suspension	335
581	D9	Meritor	420-1K3	MT40-14X	40,000 LB Rear Axle	266
582	D9	Meritor	420-1N8	RT-40-145A	40,000 LB Rear Axle with Aluminum Carrier	853
583	D9	Meritor	420-1N6	RT-40-145P	40,000 LB Rear Axle with Pump	930
584	D9	Detroit	420-1GT	ART-44.0-4	44,000 LB Rear Axle	770
585	D9	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	2,944
586	D9	Meritor	420-111	RT-46-160P	46,000 LB Rear Axle with Pump	3,196
587	D9	Meritor	420-051	RS-23-160	23,000 LB Single rear Axle	(5,476)
588	D9	Meritor	386-044	RPL25	HD Main Driveline	227
589	D9	Freightliner	452-006		Driver Controlled Traction Differential- Both Axles	871
590	D9	Meritor	423-085		16.5x8.62 Rear Brakes	145
591	D9	Freightliner	425-002		Rear Brake Dust Shields	76
592	D9	Freightliner	622-218		40,000 LB HD Air Suspension	252
593	D9	Freightliner	622-108		46,000 LB Air Suspension	604
594	D9	Freightliner	622-216		23,000 LB Air Suspension	0
595	D9	WABCO	490-101		4S/4M ABS with Traction Control	178
596	D9	WABCO	490-035		6S/6M ABS with Traction Control	665
597	D9	Bendix	480-009		AD-9 Air Dryer	37
598	D9	Bendix	480-047		AD-IS Air Dryer	135
599	D9	Freightliner	460-007		Aluminum Air Tanks	356
600	D9	Freightliner	914-002		Trailer Connections at EOF	158

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*** Offerer should reference this Invitation's Section-B, subsection 12 ***						
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	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
601	D9	Freightliner	546-093		11/32x3-1/2x10-3/16" Frame 80KSI	180
602	D9	Freightliner	546-100		11/32x3-1/2x10-3/16" Frame 120KSI	198
603	D9	Freightliner	546-101		11/32x3-1/2x10-5/16" Frame 120KSI	457
604	D9	Freightliner	546-102		7/16x3-9/19x11-1/8" Frame 120KSI	934
605	D9	Freightliner	547-001		1/4" Inner Frame Reinforcement	850
606	D9	Freightliner	674-002		LH/RH BOC Access	85
607	D9	Freightliner	592-055		28" Deck Plate	84
608	D9	Freightliner	592-057		42" Deck Plate	112
609	D9	Betts	585-1AJ	B-7	Stainless Steel Mudflap Brackets	64
610	D9	Freightliner	583-057		Stainless Steel Quarter Fenders	187
611	D9	Freightliner	583-058		Plastic Quarter Fenders	95
612	D9	Protech	602-076		28" Locking Toolbox	879
613	D9	Holland	578-363		Stationary Fifth Wheel	748
614	D9	Holland	578-1JT		Air Slide Fifth Wheel	1,278
615	D9	Freightliner	206-158		120 Gallon Fuel Tank RH Side	205
616	D9	Freightliner	206-162		150 Gallon Fuel Tank RH Side	252
617	D9	Freightliner	204-158		120 Gallon Fuel Tank lH Side	168
618	D9	Freightliner	204-162		150 Gallon Fuel Tank lH Side	378
619	D9	Alliance	122-078		Fuel/Water Separator with Indicator Light	95
620	D9	Alliance	122-079		Fuel/Water Separator with Heated Bowl and Indicator Lamp	186
621	D9	Alliance	122-084		Fuel/Water Separator with Heated Bowl, Primer Pump and Indicator Lamp	226
622	D9	Davco	122-1F1		482 Fuel/Water Separator	375
623	D9	Davco	122-1F2		482 Fuel/Water Separator w/Pre Heater	507
624	D9	Goodyear	093-2AU	LHS	11R24.5 FR Tires	162
625	D9	Goodyear	094-1U5	661	11R24.5 FR Tires	128
626	D9	Goodyear	094-0WF	G182	11R24.5 RR Tires	375
627	D9	Goodyear	094-2AU	G399	11R24.5 RR Tires	650
628	D9	Michelin	094-0RD	XZY-3	11R24.5 RR Tires	1,802
629	D9	Accuride	502-1EH	98367	22.5x8.25 Aluminum FR Wheels	352
630	D9	Accuride	505-1EF	88367	22.5x8.25 Aluminum RR Wheels	1,123
631	D9	Accuride	502-333	29362	24.5x8.25 Aluminum FR Wheels	338
632	D9	Accuride	505-333	29362	24.5x8.25 Aluminum RR Wheels	1,353
633	D9	Freightliner	727-066		Dual 26" Air Horns	98
634	D9	Freightliner	294-086		LED Stop/Tail/Turn Lights	63
635	D9	Freightliner	744-1C6		Dual Bright Mirrors with LH/RH Remote	78
636	D9	Freightliner	764-016		Exterior Sun Visor	165
637	D9	Freightliner	720-002		2 1/2 lb Fire Extinguisher	45
638	D9	Freightliner	720-003		5 lb Fire Extinguisher	56
639	D9	Freightliner	655-005		Electric Door Locks	64
640	D9	Delphi	746-1AN		AM/FM/WB Sirius Premium Radio	546
641	D9	Freightliner	746-1AF		AM/FM Radio	227
642	D9	Freightliner	746-1AG		AM/FM/WB CD/MP3 Premium Radio	374

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc		

***** Offerer should reference this Invitation's Section-B, subsection 12 *****

(1) Bid each option item on a single, separate line. Inserting additional lines as necessary.

(2) No handwritten entries.

(3) Options should be priced at the differential amount between the Base Unit models' price and the optional (upgrade/downgrade) option.

(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.

HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
643	D10/D11	Freightliner	WHL-452		178" Wheelbase	275
644	D10/D11	Freightliner	WHL-482		190" Wheelbase	391
645	D10/D11	Freightliner	WHL-527		208" Wheelbase	460
646	D10/D11	Freightliner	WHL-552		218" Wheelbase	305
647	D10/D11	Freightliner	WHL-635		250" Wheelbase	772
648	D10/D11	Freightliner	WHL-700		276" Wheelbase	969
649	D10/D11	Cummins	101-2N2	ISB	220 HP 520 LB FT TQ	543
650	D10/D11	Cummins	101-2GD	ISB	240 HP 560 LB FT TQ	1,119
651	D10/D11	Cummins	101-2RJ	ISB	260 HP 660 LB FT TQ	3,213
652	D10/D11	Cummins	101-2N7	ISB	300 HP 660 LB FT TQ	4,925
653	D10/D11	Leece Neville	124-1DE		200 Amp 12v Alternator	804
654	D10/D11	Freightliner	171-007		Gates Blue Stripe Coolant Hoses	82
655	D10/D11	Allison	342-1MC		1000 EVS Auto Trans	1,225
656	D10/D11	Allison	342-1MB		1000 RDS Auto Trans	687
657	D10/D11	Allison	342-1MF		2200 HS Auto Trans	1,503
658	D10/D11	Allison	342-1MK		2100 RDS Auto Trans	1,244
659	D10/D11	Allison	342-1MN		2500 RDS Auto Trans	1,610
660	D10/D11	Allison	342-1MR		2200 EVS Auto Trans W Park Pawl	2,106
661	D10/D11	Allison	342-1MT		2500 EVS Auto Trans	1,661
662	D10/D11	Freightliner	620-049		6,000 LB Front Suspension	257
663	D10/D11	Freightliner	620-050		7,000 LB Front Suspension	319
664	D10/D11	Freightliner	620-054		7,500 LB Front Suspension	350
665	D10/D11	Freightliner	620-1A3		8000 LB Front Suspension	203
666	D10/D11	Freightliner	620-054		7,500 LB Front Suspension	350
667	D10/D11	Freightliner	620-019		9,000 LB Front Suspension	207
668	D10/D11	Freightliner	620-062		10,000 LB Front Suspension	211
669	D10/D11	Freightliner	420-1C4	DA-RS-17.5	17,500 LB Rear Axle	567
670	D10/D11	Freightliner	420-1GJ	DA-RS-19	19,000 LB Rear Axle	724
671	D10/D11	Meritor	420-1M4	MS-17-14X	17,500 LB Rear Axle	1,420
672	D10/D11	Freightliner	622-1BE		10,000 LB Rear Suspension	429
673	D10/D11	Freightliner	622-1K7		11,000 LB Rear Suspension	382
674	D10/D11	Freightliner	622-032		12,000 LB Rear Suspension	382
675	D10/D11	Freightliner	622-1GX		13,000 LB Rear Suspension	447
676	D10/D11	Freightliner	622-004		17,500 LB Rear Suspension	566
677	D10/D11	Freightliner	622-004		20,000 LB Rear Suspension	678
678	D10/D11	Freightliner	622-282		18,000 LB Air Rear Suspension	1,494
679	D10/D11	Freightliner	622-057		20,000 LB Air Rear Suspension	1,652
680	D10/D11	Freightliner	547-001		1/4" Inner Frame Liner	2,304
681	D10/D11	Freightliner	556-022		11" Sweptback Steel Bumper	272
682	D10/D11	Freightliner	018-022		Air Brakes	1,981
683	D10/D11	Freightliner	558-001		Front Tow Hooks	148
684	D10/D11	Freightliner	230-045		40 Gallon Fuel Tank RH	365
685	D10/D11	Freightliner	230-001		60 Gallon Fuel Tank RH	415
686	D10/D11	Alliance	122-081		Fuel Water Separator	174
687	D10/D11	Davco	122-1D7	382	Fuel Water Separator	300
688	D10/D11	Goodyear	093-0KD	G647	245/70R19.5 14 Ply FR Tires	274

FORM E-1: Chassis Manufacturer Options Pricing					Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc					
*** Offerer should reference this Invitation's Section-B, subsection 12 ***						
(1) Bid each option item on a single, separate line. Inserting additional lines as necessary. (2) No handwritten entries. (3) Options should be priced at the differential amount between the Base Unit models' price and the optional (upgrade/downgrade) option. (4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.						
	HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
689	D10/D11	Goodyear	094-0KD	G647	245/70R19.5 14 Ply RR Tires	488
690	D10/D11	Alcoa	502-1H2		19.5x6.76 Aluminum Front Wheels	464
691	D10/D11	Alcoa	505-1H2		19.5x6.76 Aluminum Rear Wheels	980
692	D10/D11	Sanden	130-003		Air Conditioner Compressor	258
693	D10/D11	Freightliner	532-007		Tilt Steering Column	159

Zimbra **elena.gomez@co.hidalgo.tx.us**

FW: Revised PCT 4 Roll-Off HGAC Quote

From : Loleta Chappel <Loleta.Chappel@h-gac.com> Wed, Sep 07, 2016 04:22 PM
4 attachments

Subject : FW: Revised PCT 4 Roll-Off HGAC Quote

To : elena gomez <elena.gomez@co.hidalgo.tx.us>

Cc : nick perez <nick.perez@co.hidalgo.tx.us>

Hi Elena

Mike is correct The Warranty Prices are allowed as long as they supply the Paperwork which is the 2nd sheet.
Also we do allow Unpublished Options as stated on the HGACBUY Product Pricing Worksheet Under Category "C" These items were not submitted and priced in the Contractor's Bid. Also Unpublished Options cannot exceed 25% of the total of the Base Unit Price plus Published Options. This calculation automatically calculates on each worksheet.

Thank You

Loleta Chappel
Procurement Service Specialist
Direct 713-993-2486
Fax 713-993-4548
www.hgacbuy.org
HGACBuy THE SMART PURCHASING SOLUTION

From: Lundy, Jennifer
Sent: Wednesday, September 07, 2016 4:06 PM
To: mailto:elena.gomez@co.hidalgo.tx.us <elena.gomez@co.hidalgo.tx.us>; Chappel, Loleta <Loleta.Chappel@h-gac.com>
Cc: nick.perez@co.hidalgo.tx.us
Subject: FW: Revised PCT 4 Roll-Off HGAC Quote
Importance: High

Hi Elena,

Sorry I've been in training all day and just reading this email. I have forwarded this email to HGAC Procurement Specialist, Loleta Chappel so that she can assist you with this. I've also attached a copy of Doggett's Contract.

Loleta,

A CONTRACT BETWEEN
HOUSTON-GALVESTON AREA COUNCIL
Houston, Texas
AND
HOUSTON FREIGHTLINER, INC
Houston, Texas

This Contract is made and entered into by the **Houston-Galveston Area Council of Governments,** hereinafter referred to as **H-GAC,** having its principal place of business at 3555 Timmons Lane, Suite 120, Houston, Texas 77027, AND, **Houston Freightliner, Inc,** hereinafter referred to as the **CONTRACTOR,** having its principal place of business at 9550 North Loop East, Houston, Texas 77039.

ARTICLE 1: SCOPE OF SERVICES

The parties have entered into a **Medium and Heavy Trucks & Truck Bodies** Contract to become effective as of June 1, 2016, and to continue through May 31, 2018 (the "**Contract**"), subject to extension upon mutual agreement of the **CONTRACTOR** and **H-GAC. H-GAC** enters into the Contract as Agent for participating governmental agencies, each hereinafter referred to as **END USER,** for the purchase of **Medium and Heavy Trucks & Truck Bodies** offered by the **CONTRACTOR.** The **CONTRACTOR** agrees to sell **Medium and Heavy Trucks & Truck Bodies** through the **H-GAC** Contract to **END USERS.**

ARTICLE 2: THE COMPLETE AGREEMENT

The Contract shall consist of the documents identified below in order of precedence:

1. The text of this Contract form, including but not limited to, Attachment A
2. General Terms and Conditions
3. Bid Specifications No: **HT06-16,** including any relevant suffixes
4. **CONTRACTOR's** Response to Bid No: **HT06-16,** including but not limited to, prices and options offered

All of which are either attached hereto or incorporated by reference and hereby made a part of this Contract, and shall constitute the complete agreement between the parties hereto. This Contract supersedes any and all oral or written agreements between the parties relating to matters herein. Except as otherwise provided herein, this Contract cannot be modified without the written consent of both parties.

ARTICLE 3: LEGAL AUTHORITY

CONTRACTOR and **H-GAC** warrant and represent to each other that they have adequate legal counsel and authority to enter into this Contract. The governing bodies, where applicable, have authorized the signatory officials to enter into this Contract and bind the parties to the terms of this Contract and any subsequent amendments thereto.

ARTICLE 4: APPLICABLE LAWS

The parties agree to conduct all activities under this Contract in accordance with all applicable rules, regulations, directives, issuances, ordinances, and laws in effect or promulgated during the term of this Contract.

ARTICLE 5: INDEPENDENT CONTRACTOR

The execution of this Contract and the rendering of services prescribed by this Contract do not change the independent status of **H-GAC** or **CONTRACTOR.** No provision of this Contract or act of **H-GAC** in performance of this Contract shall be construed as making **CONTRACTOR** the agent, servant or employee of **H-GAC,** the State of Texas or the United States Government. Employees of **CONTRACTOR** are subject to the exclusive control and supervision of **CONTRACTOR. CONTRACTOR** is solely responsible for employee payrolls and claims arising therefrom.

ARTICLE 6: END USER AGREEMENTS

H-GAC acknowledges that the **END USER** may choose to enter into an End User Agreement with the **CONTRACTOR** through this Contract and that the term of said Agreement may exceed the term of the **H-GAC** Contract. However this acknowledgement is not to be construed as **H-GAC's** endorsement or approval of the End User Agreement terms and conditions. **CONTRACTOR** agrees not to offer, agree to or accept from **END USER** any terms or conditions that conflict with or contravene those in **CONTRACTOR's H-GAC** contract. Further, termination of this Contract for any reason shall not result in the termination of the underlying End User Agreements entered into between **CONTRACTOR** and any **END USER** which shall, in each instance, continue pursuant to their stated terms and duration. The only effect of termination of this Contract is that **CONTRACTOR** will no longer be able to enter into any new End User Agreements with **END USERS** pursuant to this Contract. Applicable **H-GAC** order processing charges will be due and payable to **H-GAC** on any End User Agreements surviving termination of this Contract between **H-GAC** and **CONTRACTOR.**

ARTICLE 7: SUBCONTRACTS & ASSIGNMENTS

CONTRACTOR agrees not to subcontract, assign, transfer, convey, sublet or otherwise dispose of this Contract or any right, title, obligation or interest it may have therein to any third party without prior written notice to **H-GAC**. **H-GAC** reserves the right to accept or reject any such change. **CONTRACTOR** shall continue to remain responsible for all performance under this Contract regardless of any subcontract or assignment. **H-GAC** shall be liable solely to **CONTRACTOR** and not to any of its Subcontractors or Assignees.

ARTICLE 8: EXAMINATION AND RETENTION OF CONTRACTOR'S RECORDS

CONTRACTOR shall maintain during the course of its work, complete and accurate records of items that are chargeable to **END USER** under this Contract. **H-GAC**, through its staff or its designated public accounting firm, the State of Texas, or the United States Government shall have the right at any reasonable time to inspect copy and audit those records on or off the premises of **CONTRACTOR**. Failure to provide access to records may be cause for termination of this Contract. **CONTRACTOR** shall maintain all records pertinent to this Contract for a period of not less than five (5) calendar years from the date of acceptance of the final contract closeout and until any outstanding litigation, audit or claim has been resolved. The right of access to records is not limited to the required retention period, but shall last as long as the records are retained. **CONTRACTOR** further agrees to include in all subcontracts under this Contract, a provision to the effect that the subcontractor agrees that **H-GAC'S** duly authorized representatives, shall, until the expiration of five (5) calendar years after final payment under the subcontract or until all audit findings have been resolved, have access to, and the right to examine and copy any directly pertinent books, documents, papers, invoices and records of such subcontractor involving any transaction relating to the subcontract.

ARTICLE 9: REPORTING REQUIREMENTS

CONTRACTOR agrees to submit reports or other documentation in accordance with the General Terms and Conditions of the Bid Specifications. If **CONTRACTOR** fails to submit to **H-GAC** in a timely and satisfactory manner any such report or documentation, or otherwise fails to satisfactorily render performance hereunder, such failure may be considered cause for termination of this Contract.

ARTICLE 10: MOST FAVORED CUSTOMER CLAUSE

If **CONTRACTOR**, at any time during this Contract, routinely enters into agreements with other governmental customers within the State of Texas, and offers the same or substantially the same products/services offered to **H-GAC** on a basis that provides prices, warranties, benefits, and or terms more favorable than those provided to **H-GAC**, **CONTRACTOR** shall notify **H-GAC** within ten (10) business days thereafter of that offering and this Contract shall be deemed to be automatically amended effective retroactively to the effective date of the most favorable contract, wherein **CONTRACTOR** shall provide the same prices, warranties, benefits, or terms to **H-GAC** and its **END USER**. **H-GAC** shall have the right and option at any time to decline to accept any such change, in which case the amendment shall be deemed null and void. If **CONTRACTOR** is of the opinion that any apparently more favorable price, warranty, benefit, or term charged and/or offered a customer during the term of this Contract is not in fact most favored treatment, **CONTRACTOR** shall within ten (10) business days notify **H-GAC** in writing, setting forth the detailed reasons **CONTRACTOR** believes aforesaid offer which has been deemed to be a most favored treatment, is not in fact most favored treatment. **H-GAC**, after due consideration of such written explanation, may decline to accept such explanation and thereupon this Contract between **H-GAC** and **CONTRACTOR** shall be automatically amended, effective retroactively, to the effective date of the most favored agreement, to provide the same prices, warranties, benefits, or terms to **H-GAC**.

The Parties accept the following definition of routine: A prescribed, detailed course of action to be followed regularly; a standard procedure.
EXCEPTION: This clause shall not be applicable to prices and price adjustments offered by a bidder, proposer or contractor, which are not within bidder's/ proposer's control [example; a manufacturer's bid concession], or to any prices offered to the Federal Government and its agencies.

ARTICLE 11: SEVERABILITY

All parties agree that should any provision of this Contract be determined to be invalid or unenforceable, such determination shall not affect any other term of this Contract, which shall continue in full force and effect.

ARTICLE 12: DISPUTES

Any and all disputes concerning questions of fact or of law arising under this Contract, which are not disposed of by agreement, shall be decided by the Executive Director of **H-GAC** or his designee, who shall reduce his decision to writing and provide notice thereof to **CONTRACTOR**. The decision of the Executive Director or his designee shall be final and conclusive unless, within thirty (30) days from the date of receipt of such notice, **CONTRACTOR** requests a rehearing from the Executive Director of **H-GAC**. In connection with any rehearing under this Article, **CONTRACTOR** shall be afforded an opportunity to be heard and offer evidence in support of its position. The decision of the Executive Director after any such rehearing shall be final and conclusive. **CONTRACTOR** may, if it elects to do so, appeal the final and conclusive decision of the Executive Director to a court of competent jurisdiction. Pending final decision of a dispute hereunder, **CONTRACTOR** shall proceed diligently with the performance of this Contract and in accordance with **H-GAC'S** final decision.

ARTICLE 13: LIMITATION OF CONTRACTOR'S LIABILITY

Except as specified in any separate writing between the **CONTRACTOR** and an **END USER, CONTRACTOR's** total liability under this Contract, whether for breach of contract, warranty, negligence, strict liability, in tort or otherwise, but excluding its obligation to indemnify **H-GAC** described in Article 14, is limited to the price of the particular products/services sold hereunder, and **CONTRACTOR** agrees either to refund the purchase price or to repair or replace product(s) that are not as warranted. In no event will **CONTRACTOR** be liable for any loss of use, loss of time, inconvenience, commercial loss, lost profits or savings or other incidental, special or consequential damages to the full extent such use may be disclaimed by law. **CONTRACTOR** understands and agrees that it shall be liable to repay and shall repay upon demand to **END USER** any amounts determined by **H-GAC**, its independent auditors, or any agency of State or Federal government to have been paid in violation of the terms of this Contract.

ARTICLE 14: LIMIT OF H-GAC'S LIABILITY AND INDEMNIFICATION OF H-GAC

H-GAC's liability under this Contract, whether for breach of contract, warranty, negligence, strict liability, in tort or otherwise, is limited to its order processing charge. In no event will **H-GAC** be liable for any loss of use, loss of time, inconvenience, commercial loss, lost profits or savings or other incidental, special or consequential damages to the full extent such use may be disclaimed by law. Contractor agrees, to the extent permitted by law, to defend and hold harmless **H-GAC**, its board members, officers, agents, officials, employees, and indemnities from any and all claims, costs, expenses (including reasonable attorney fees), actions, causes of action, judgments, and liens arising as a result of **CONTRACTOR's** negligent act or omission under this Contract. **CONTRACTOR** shall notify **H-GAC** of the threat of lawsuit or of any actual suit filed against **CONTRACTOR** relating to this Contract.

ARTICLE 15: TERMINATION FOR CAUSE

H-GAC may terminate this Contract for cause based upon the failure of **CONTRACTOR** to comply with the terms and/or conditions of the Contract; provided that **H-GAC** shall give **CONTRACTOR** written notice specifying **CONTRACTOR'S** failure. If within thirty (30) days after receipt of such notice, **CONTRACTOR** shall not have either corrected such failure, or thereafter proceeded diligently to complete such correction, then **H-GAC** may, at its option, place **CONTRACTOR** in default and the Contract shall terminate on the date specified in such notice. **CONTRACTOR** shall pay to **H-GAC** any order processing charges due from **CONTRACTOR** on that portion of the Contract actually performed by **CONTRACTOR** and for which compensation was received by **CONTRACTOR.**

ARTICLE 16: TERMINATION FOR CONVENIENCE

Either **H-GAC** or **CONTRACTOR** may cancel or terminate this Contract at any time by giving thirty (30) days written notice to the other. **CONTRACTOR** may be entitled to payment from **END USER** for services actually performed; to the extent said services are satisfactory to **END USER. CONTRACTOR** shall pay to **H-GAC** any order processing charges due from **CONTRACTOR** on that portion of the Contract actually performed by **CONTRACTOR** and for which compensation is received by **CONTRACTOR.**

ARTICLE 17: CIVIL AND CRIMINAL PROVISIONS AND SANCTIONS

CONTRACTOR agrees that it will perform under this Contract in conformance with safeguards against fraud and abuse as set forth by **H-GAC**, the State of Texas and the acts and regulations of any funding entity. **CONTRACTOR** agrees to notify **H-GAC** of **any** suspected fraud, abuse or other criminal activity related to this Contract through filing of a written report promptly after it becomes aware of such activity.

ARTICLE 18: GOVERNING LAW & VENUE

This Contract shall be governed by the laws of the State of Texas. Venue and jurisdiction of any suit or cause of action arising under or in connection with this Contract shall lie exclusively in Harris County, Texas. Disputes between **END USER** and **CONTRACTOR** are to be resolved in accord with the law and venue rules of the state of purchase. **CONTRACTOR** shall immediately notify **H-GAC** of such disputes.

ARTICLE 19: PAYMENT OF H-GAC ORDER PROCESSING CHARGE

CONTRACTOR agrees to sell its products to **END USERS** based on the pricing and other terms of this Contract, including, but not limited to, the payment of the applicable **H-GAC** order processing charge. On notification from an **END USER** that an order has been placed with **CONTRACTOR, H-GAC** will invoice **CONTRACTOR** for the applicable order processing charge. Upon delivery of any product/service by **CONTRACTOR** and acceptance by **END USER, CONTRACTOR** shall, within thirty (30) calendar days or ten (10) business days after receipt of payment, whichever is less, pay **H-GAC** the full amount of the applicable order processing charge, whether or not **CONTRACTOR** has received an invoice from **H-GAC.** For sales made by **CONTRACTOR** based on this contract, including sales to entities without Interlocal Contracts, **CONTRACTOR** shall pay the applicable order processing charges to **H-GAC.** Further, **CONTRACTOR** agrees to encourage entities who are not members of **H-GAC's** Cooperative Purchasing Program to execute an **H-GAC** Interlocal Contract. **H-GAC** reserves the right to take appropriate actions including, but not limited to, contract termination if **CONTRACTOR** fails to promptly remit **H-GAC's** order processing charge. In no event shall **H-GAC** have any liability to **CONTRACTOR** for any goods or services an **END USER** procures from **CONTRACTOR.**

ARTICLE 20: LIQUIDATED DAMAGES

Any liquidated damages terms will be determined between **CONTRACTOR** and **END USER** at the time **END USER's** purchase order is placed.

ARTICLE 21: PERFORMANCE AND PAYMENT BOND FOR INDIVIDUAL ORDERS

H-GAC's contractual requirements DO NOT include a Performance & Payment Bond (PPB), and offered pricing should reflect this cost saving. However, **CONTRACTOR** must be prepared to offer a PPB to cover any specific order if so requested by **END USER**. **CONTRACTOR** shall quote a price to **END USER** for provision of any requested PPB, and agrees to furnish the PPB within ten business (10) days of receipt of **END USER's** purchase order.

ARTICLE 22: CHANGE OF CONTRACTOR STATUS

CONTRACTOR shall immediately notify **H-GAC**, in writing, of **ANY** change in ownership, control, dealership/franchisee status, Motor Vehicle license status, or name, and shall also advise whether or not this Contract shall be affected in any way by such change. **H-GAC** shall have the right to determine whether or not such change is acceptable, and to determine what action shall be warranted, up to and including cancellation of Contract.

ARTICLE 23: LICENSING REQUIRED BY TEXAS MOTOR VEHICLE BOARD *[IF APPLICABLE]*

CONTRACTOR will, for the duration of this Contract, maintain current licenses that are required by the Texas Motor Vehicle Commission Code. If at any time during this Contract period, any **CONTRACTOR'S** license is not renewed, or is denied or revoked, **CONTRACTOR shall** be deemed to be in default of this Contract unless the Motor Vehicle Board issues a stay or waiver. Contractor shall promptly provide copies of all current applicable Texas Motor Vehicle Board documentation to **H-GAC** upon request.

IN WITNESS WHEREOF, the parties have caused this Contract to be executed by their duly authorized representatives.

Signed for **Houston-Galveston Area Council**, Houston, Texas: _____
Jack Steele, Executive Director

Attest for **Houston-Galveston Area Council**, Houston, Texas: _____
Deidre Vick, Director of Public Services

Date: May 26, 2016

Signed for **Houston Freightliner, Inc** Houston, Texas: _____

Printed Name & Title: Bob Garwood President

Date: 5-19, 2016

Attest for **Houston Freightliner, Inc** Houston, Texas: _____

Printed Name & Title: Michael McCarthy Account Manager

Date: 5-19, 2016

Attachment A
Houston Freightliner, Inc
Medium and Heavy Trucks & Truck Bodies
Contract No.: HT06-16

MFGR	HGAC PRODUCT CODE	MODEL	BASE PRICE
Freightliner	D1	108SD-70, Conv. Cab, SBFA, SRA	$63,924
Freightliner	D2	108SD-80, Conv. Cab, SBFA, TRA	$73,872
Freightliner	D3	114SD, Conv. Cab, SFFA, SRA	$77,539
Freightliner	D4	122SD, Conv Cab, SFFA, TRA	$91,973
Freightliner	D5	M2-106-60, Conv. Cab, SBFA, SRA	$57,272
Freightliner	D6	M2-106-70, Conv. Cab, SBFA, SRA	$59,658
Freightliner	D7	M2-106-80, Conv. Cab, SBFA, TRA:	$69,353
Freightliner	D8	M2-112, Conv. Cab, SBFA, TRA	$74,735
Freightliner	D9	Cascadia CA113-DC, Conv Cab Tractor, SBFA, TRA	$89,634

Zimbra **rudy.salinas1@co.hidalgo.tx.us**

RE: Purchasing Program Administrative Fee Schedule

From : Loleta Chappel <Loleta.Chappel@h-gac.com> Wed, Sep 07, 2016 02:16 PM
Subject : RE: Purchasing Program Administrative Fee Schedule 1 attachment
To : Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>

Hi Rudy

Yes, this is the correct fee schedule the only correction is the Wireless Communications Services is 1.5% of Total PO amount.

Thank You

Loleta Chappel
Procurement Service Specialist
Direct 713-993-2486
Fax 713-993-4548
www.hgacbuy.org
HGACBuy THE SMART PURCHASING SOLUTION

From: Rudy Salinas [mailto:rudy.salinas1@co.hidalgo.tx.us]
Sent: Wednesday, September 07, 2016 10:45 AM
To: Chappel, Loleta <Loleta.Chappel@h-gac.com>
Subject: Purchasing Program Administrative Fee Schedule

Loleta, Good Morning!

Can you provide me an updated Fee Schedule (see attached) and confirm that these fees are allowed to be charged by the vendor.

Thank You,

Rudy Salinas, Procurement Manager
Hidalgo County Purchasing Department
2808 South Business Highway 281
Edinburg, Texas 78539
Phone: 956-318-2626 Ext: 4875
Email: rudy.salinas1@co.hidalgo.tx.us

HGACBuy Cooperative Purchasing Program
Administrative Fee Schedule
(Effective 4/1/2014)

HGACBuy
THE SMART PURCHASING SOLUTION

Product or Service Category	Fee Assessment
VEHICLES:	
Cars, Light Trucks, Utility Vehicles, Vans, Brush Fire/Wildland Units, etc; and Light Duty Trucks w/Bodies supplied by the Cab/Chassis Dealer (i.e. all on a single PO)	$ 600 flat per PO
Medium & Heavy Duty Trucks, Cab/Chassis only w/o Bodies (i.e. exposed frame rails); Ambulance Remounts	$ 600 flat per PO
Buses, School & Transit (All Types)	$ 600 flat per PO
Medium & Heavy Duty Trucks w/Bodies supplied by the Cab/Chassis Dealer (i.e. all on a single PO).	$ 1,000 flat per PO
Medium & Heavy Duty Trucks w/Bodies supplied from a ***different*** contract (i.e. Refuse Collection or Sewer Cleaning contracts; all on a single PO).	$1,500 per PO
Ambulances, Complete (All Types)	$ 1,000 flat per PO
Fire Apparatus (All Types Except Brush/Wildland)	$ 2,000 flat per PO
Truck Bodies and Conversions on separate PO from Cab/Chassis (i.e. Sewer Cleaners, Box Vans, Brush Fire/Wildland Units, Refuse Collection Bodies etc.).	1.5% of total PO amount
Trailers (All Types)	1.5% of total PO amount
[redacted]	
Wireless Communications Services	1.0% of total PO amount
ALL OTHER PRODUCTS & SERVICES:	1.5% of total PO amount
Published Options purchased directly from a contract (separate and apart from the associated base line item)	1.5% of total PO amount

PLEASE REVIEW THE QUOTATION BELOW. THIS TRUCK CAN BE PURCHASED USING THE BUYBOARD CONTRACT NUMBER 208-04. TO ORDER SEND THIS PURCHASE ORDER TO STEVE FISHER, PH: 1-800-695-2919 EXT. 7153, FAX 800-211-5454.

PURCHASE ORDERS ARE TO BE MADE OUT TO THE VENDOR:
B & C BODY COMPANY
ATTN: JIM LEWIS PHONE: 214-631-2196 FAX : 214-630-2755

End User:	HIDALGO CO. PCT 4	**DATE:**	8/23/2016
Prepared By:	JIM LEWIS	**CONTRACT 425-13**	
VENDOR:	B & C BODY COMPANY		
Description:	**GALBREATH R/O HOIST**		
A Item Base Unit Price, Per BUYBOARD Contract:	R/O HOIST	**A:**	16894

B OPTIONS QUOTED

Description	Cost	Description	Cost
NSHD NYLON HOLD DOWN STRAPS	495	HUCK (HUCK BOLT FRAME)	2322
SA-17A 48" TOOL BOX	888	U5BM/8044BO AIR ASSIST ICC	1245
DTPF HDTP TANDEM FENDERS	1118	TF INSIDE AIR CONTROLS	850
FMB FENDER MOUNTING BRACKET	315	RLR REAR LOADING RAMPS	913
TMP TARPER MOUNTING BRACKET	275		
HK989 PIONEER RP4500SARG	9968		
HIGH PERCENTAGE PTO	1145		
		Subtotal From Additional Sheet(s):	

Subtotal B: 19,534

C Unpublished Options (Itemize below, attach additional sheet(s) if necessary)

DESCRIPTION	COST	DESCRIPTION	COST	TOTAL
		Subtotal From Additional Sheet(s):		

Subtotal C:

D Miscellaneous Price Adjustments

Subtotal D:

E	**TOTAL PRICE FOR ONE UNIT!!!**		**36,428**
	Quantity Ordered	**X**	**1**
	TOTAL PRICE FOR UNIT!!!	**Subtotal E:**	**36,428**
	BUYBOARD FEE INCLUDED		

Total Purchase Price (E+F+G): **36,428**

BuyBoard® Cooperative Purchasing

Administration | RFQ | Reports | Sho

Vendor Contract Information

Back

Search:

All
Vendor Discounts Only
Catalog Pricing Only

Refine Your Search:

Vendors
B & C Body Company[X]
Price Range
Show all prices
Category
None Selected
Contract
None selected

Additional Searches:

Search by Vendor

Browse Contracts

Additional Resources

Vendor Name:	B & C Body Company
Address:	2934 Hwy 31 North Longview, TX 75603
Phone Number:	(214) 631-2196
Alternate Phone Number	(501) 454-1007
Email:	jim.lewis@bandcbody.com
Website:	http://www.bandcbody.com
Federal ID:	26-0423413
Contact:	Jim Lewis
Accepts RFQs:	Yes
Minority Owned:	No
Women Owned:	No
Service-Disabled Veteran Owned:	No
EDGAR:	No
Contract Name:	Refuse Bodies, Trailers & Other Bodies (Bodies 40(
Contract#:	425-13
Effective Date:	10/01/2013
Expiration Date:	11/30/2016
Payment Terms:	Net 30 days
Delivery Days:	180
Shipping Terms:	Pre-paid and added to invoice
Freight Terms:	FOB Destination
Ship Via:	Common Carrier
Region Served:	All Texas Regions
States Served:	All States
Additional Info:	Purchase order subject to a $400 fee.
Quote Reference Number:	425-13
Additional Dealers:	Dallas TX

Contract Documents

EDGAR Notice:	Click to view EDGAR Notice

Shopping Cart

Vendor	Description	Part Number	Price	Qty	Total
B & C Body Company	Roll Off Hoist, 60,000# capacity outside rail	Hoist	$16,894.00	1	$16,894.00
				Grand Total:	**$16,894.00**

Proposal Invitation No. 425-13 - Refuse Bodies, Trailers, and Other Bodies

Item No.	Specified Brand or Equal	Short Description	Full Description	Delivered Price	Brand and Model	Options
70	Dragon, Etc.	30 Cubic Yard Roll Off Container	**Roll Off Container** -- 30 cubic yard with rectangular or bathtub design, 1/4" floor, 2 rollers on rear, 3/4" hook plate			Attach separate sheet with upgrade options
71	Dragon, Etc.	40 Cubic Yard Roll Off Container	**Roll Off Container** -- 40 cubic yard with rectangular or bathtub design, 1/4" floor, 2 rollers on rear, 3/4" hook plate			Attach separate sheet with upgrade options
72	Galbreath, Etc.	Roll Off Hoist, 60,000# capacity outside rail	**Roll Off Hoist** -- 60,000 lb. Capacity, for 22' containers, air shift PTO/Pump, inside & outside controls, ICC bumper, toolbox and fenders			Attach separate sheet with upgrade options
73	Palfinger, Etc.	Palift Hook load Roll Off Hoist	**Palift Hook load Roll Off Hoist** -- 9,000 to 68,000 lb. lift capacities, 14,500 to 86,000 lb. GVW ratings			Attach separate sheet with upgrade options
74	Heil STARR System, Etc.	33 yard Semi-Trailer	**Semi Trailer** -- 33 yard			Attach separate sheet with upgrade options
75	Heil STARR System, Etc.	37 yard Semi-Trailer	**Semi Trailer** -- 37 yard			Attach separate sheet with upgrade options
76	Wayne Pup, Etc.	Trailer Mount Side load Refuse Container	**Trailer Mount Side load Refuse Container** -- all manufacturer's standard equipment for refuse container			Attach separate sheet with upgrade options
77	J&J, Dyna Hauler, CPS, Etc.	115 cubic yard steel or aluminum transfer trailer	**Transfer Trailer** -- 115 cubic yard steel or aluminum with open top, walking floor			Attach separate sheet with upgrade options
78	J&J, Dyna Hauler, CPS, Etc.	75 cubic yard steel transfer trailer	**Transfer Trailer** -- 75 cubic yard steel packer style			Attach separate sheet with upgrade options

AI-56243 **Purchasing Department** **12. C. 3.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Rudy Salinas, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

Approval to purchase one [1] 2017 FreightLiner Water Truck through Hidalgo County's membership/participation with HGAC [Contract#HT06-16; Expires 5/31/18] from awarded COOP vendor, Doggett FreightLiner of South Texas in the amount of ($91,350.00) through Requisition# 303367.

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1350-431-00-124-029-0-751

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

Req#303367

Attachments

Req#304735 Backup

Form Review

Inbox	Reviewed By	Date
Purchasing Department	Letty Saenz	09/08/2016 04:06 PM
Budget & Management	Veronica Ortiz	09/08/2016 04:12 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Rudy Salinas		Started On: 09/07/2016 11:07 AM
Final Approval Date: 09/09/2016		

Requisition

Req # 00303367

PO #

Date: 08/02/16

Bill To: x
x

Vendor : 421812
DOGGETT FREIGHTLINER OF SOUTH TEXAS,
3103 N CAGE BLVD
PHARR TX 78577
FAX (956)782-8235

Ship To: HIDALGO CO. PCT 4
1051 N. DOOLITTLE
EDINBURG TX 78542

Contact: RSOLIS
956-383-3112

Contract No: HGACBUY HT06-16

Special Instructions:
PCT#967

QUANTITY	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
		HGACBUY CONTRACT#HT06-16 EXP:5/31/18 FOR THE PURCHASE OF A 2017 FREIGHTLINER WATER TRUCK DO NOT DUPLICATE ORDER		
1.00	EACH	2017 FREIGHTLINER M2-106-70	59,658.00	59,658.00
1.00	EACH	11/32x3.5x10 15/16 FRAME	155.00	155.00
1.00	EACH	ALLISON 3500 RDS AUTOMATIC TRANSMISSION	7,146.00	7,146.00
1.00	EACH	AIR CONDITIONER	850.00	850.00
1.00	EACH	BW AD-9 AIR DRYER	290.00	290.00
1.00	EACH	AM/FM Radio w/Bluetooth	225.00	225.00
1.00	EACH	BATTERY SHUT OFF MTD LH OF DRIVER SEAT	205.00	205.00
1.00	EACH	RH OUTBOARD EXHAUST WITH VERTICAL STACK	629.00	629.00
1.00	EACH	23,000 LB MULTILEAF REAR SUSPENSION	1,285.00	1,285.00
1.00	EACH	216" WHEELBASE	812.00	812.00
1.00	EACH	AIR DRIVER SEAT	165.00	165.00
1.00	EACH	2 MAN PASSENGER SEAT	178.00	178.00
1.00	EACH	SPECIAL LEDWELL 2000 GALLON WATER TANK BODY	18,752.00	18,752.00
1.00	EACH	H -GAC ORDER PROCESSING CHARGE	1,000.00	1,000.00
		Account No	Encumbrance	
		6-1350-431-00-124-029-0-751	91,350.00	
			Freight	.00
			Total	91,350.00

Authorized By: _____

WATER TRUCK 2016-3186

HGACBuy	CONTRACT PRICING WORKSHEET For MOTOR VEHICLES Only	Contract No.:	HT06-16	Date Prepared:	9/7/2016

This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents MUST be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.

Buying Agency:	Hidalgo County	Contractor:	Houston Freightliner, Inc
Contact Person:	Regino Salinas	Prepared By:	Michael McCarthy
Phone:	956-383-3112	Phone:	713-580-8122
Fax:		Fax:	713-676-1603
Email:	regino.salinas@co.hidalgo.tx.us-1470	Email:	Mike.McCarthy@STRHouston.com

Product Code:	D6	Description:	2017 Freightliner M2-106-70

A. Product Item Base Unit Price Per Contractor's H-GAC Contract:	59658

B. Published Options - Itemize below - Attach additional sheet(s) if necessary - Include Option Code in description if applicable.
(Note: Published Options are options which were submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
11/32x3.5x10 15/16 Frame	155	Air Driver Seat	165
Allison 3500 RDS Automatic Transmission	7146	2 Man Passenger Seat	178
Air Conditioner	850		
BW AD-9 Air Dryer	290	Pct #967	
		Req# 303367	
AM/FM Radio	225	PO#	
Battery Shut Off mtd LH of Driver Seat	205	Special Ledwell 2000 Gallon Water Tank Body	18752
RH outboard Exhaust with Vertical Stack	629		
23,000 LB Multileaf Rear Suspension	1285		
216" Wheelbase	812	Subtotal From Additional Sheet(s):	
		Subtotal B:	30692

C. Unpublished Options - Itemize below / attach additional sheet(s) if necessary.
(Note: Unpublished options are items which were not submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
		Subtotal From Additional Sheet(s):	
		Subtotal C:	0

Check: Total cost of Unpublished Options (C) cannot exceed 25% of the total of the Base Unit Price plus Published Options (A+B).	For this transaction the percentage is:	0%

D. Total Cost Before Any Applicable Trade-In / Other Allowances / Discounts (A+B+C)						
Quantity Ordered:	1	X Subtotal of A + B + C:	90350	=	Subtotal D:	90350
E. H-GAC Order Processing Charge (Amount Per Current Policy)					Subtotal E:	1000

F. Trade-Ins / Special Discounts / Other Allowances / Freight / Installation / Miscellaneous Charges

Description	Cost	Description	Cost
Discount	0		
		Subtotal F:	0

Delivery Date:	10/1/2016	G. Total Purchase Price (D+E+F):	91350

HGACBuy THE SMART PURCHASING SOLUTION

GENERAL PURPOSE & EMERGENCY VEHICLES

MEDIUM AND HEAVY TRUCKS & TRUCK BODIES - HT06-16

Contract No.: HT06-16

Effective Date: June 1, 2016 to May 31, 2018

These are complete, turn-key chassis, equipped with current EPA threshold compliant engines/emissions, and consistent with the components and performance of H-GAC specification configuration, as viewed on this link:

For each Base Unit cab-chassis priced in the table, below, other than those options/upgrades called for by an HGAC member (alternate engine, transmission, wheelbase, body, etc), no additional, compulsory equipment or fees are required to render these cab-chassis as functioning, legally-equipped machines meeting those minimums established for each model's base configuration. Unless otherwise noted in the descriptions below, the Base Unit prices below include any emission surcharges and standard factory-to-dealer freight. Freight from dealers to HGAC members (or from dealer to conversion company) shall be recognized as a separate PO line item, unique to end user. Vendors priced various chassis manufacturer options from which HGAC members may build alternative configurations. Contact vendors for a complete quote relative to this contact .

Note: Contact information on the right side bar will be listed only after the Contractor has fully executed their contract.

- AUTOCAR
- AUTOCAR
- CATERPILLAR
- FORD
- FORD
- FREIGHTLINER
- FREIGHTLINER
- HINO
- INTERNATIONAL
- ISUZU
- ISUZU
- KENWORTH
- KENWORTH
- MACK
- PETERBILT
- RAM
- VOLVO
- WESTERN STAR

RE: Truck Bodies: various truck bodies (e.g. aerials, dump bodies, wrecker bodies, service bodies, etc.) are available through each vendor's options pricing. Contact vendors for more details.

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AUTOCAR

Contractor: Chastang Enterprises, dba Chastang's Bayou City Autocar

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
A2	ACX42, COE, SRA	$81,303
A3	ACX64, COE, TRA	$87,422

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AUTOCAR

Contractor: Grande Truck Center

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
A1	ACMD42, COE, SRA	$75,600

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CATERPILLAR

H-GAC CONTACTS

- **Loleta Chappel**
  (P): 713-993-2486
  (F): 713-993-4548
  loleta.chappel@h-gac.com

VENDOR CONTACTS

- **Chastang Enterprises Inc. dba Chastang Ford dba Chastang's Bayou City Autocar**
  Ed Miller
  (P): 713-678-5007
  (F): 713-678-5001
  Click here for Email
- **Cleveland Mack Sales, Inc. d/b/a Performance Truck**
  Peston Fredrich
  (P): 713-844-7161
  (F): 713-844-7222
  Click here for Email
- **Doggett Freightliner of South Texas, LLC**
  Mike Crockett
  (P): 210-277-4373
  (F): 210-661-0289
  Click here for Email
- **French Ellison Truck Center**
  Jason w. Mims
  (P): 210-228-2028
  (F): 210-662-5999
  Click here for Email
- **Grande Truck Center**
  Rocky Shoffstall
  (P): 210-666-7112
  (F): 210-666-7216
  Click here for Email
- **Holt Texas, LTD.**
  William Mitchell
  (P): 210-648-1111
  (F): 210-648-0079
  Click here for Email
- **Houston Freightliner, Inc**
  Michael McCarthy
  (P): 713-580-8122
  (F): 713-955-6282
  Click here for Email
- **Love Field Chrysler Dodge Jeep Ram**
  Tim Middlebrooks
  (P): 972-707-9438
  (F): 214-350-0085
  Click here for Email
- **Rush Truck Centers of Arizona, Inc. dba Rush Truck Center, Phoenix**
  George Beal
  (P): 602-422-8122
  (F): 602-422-8175
  Click here for Email
- **Rush Truck Centers of California dba Rush Truck Center, Pico Rivera**
  Kevin Voss
  (P): 800-776-3647
  (F): 800-473-2257
  Click here for Email
- **Rush Truck Centers of Texas, L.P.**
  Charles Plouse
  (P): 832-690-5047
  (F): 832-590-5289
  Click here for Email
- **Santex Truck Centers, LTD**
  Pat Lewis
  (P): 210-661-8371

Contractor: Holt Texas, LTD

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
B1	CT660S-STA, Conv. Cab, TRA, 116" BBC (CF7AA), Truck Configuration	$109,560
B2	CT660S-STA, Conv. Cab, TRA, 116" BBC (CF7AA), Tractor Configuration	$111,279
B3	CT660-LTA, Conv. Cab, TRA, 122" BBC (CF7AB), Truck Configuration	$114,953
B4	CT660-LTA, Conv. Cab, TRA, 122" BBC (CF7AB), Tractor Configuration	$116,051
B5	CT681-SG-SFA, Conv. Cab, TRA, 114" BBC (CF6AA)	$108,864
B6	CT680L-SFA, Conv. Cab, TRA, 124" BBC (CF6AB), Truck Configuration	$112,232
B7	CT680L-SFA, Conv. Cab, TRA, 124" BBC (CF6AB), Tractor Configuration	$116,876

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FORD

Contractor: Chastang Enterprises, dba Chastang Ford

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
C1	F-450, 4x2, Regular Cab, Gas Engine	$25,549
C3	F-550, 4x2, Regular Cab, Gas Engine	$26,297
C4	F-550, 4x2, Regular Cab, Diesel Engine	$33,398
C5	F-650, 4x2, Regular Cab, Gas Engine	$38,160
C6	F-650, 4x2, Regular Cab, Diesel Engine	$43,777
C7	F-750, 4x2, Regular Cab, Gas Engine	$38,906
C8	F-750, 4x2, Regular Cab, Diesel Engine	$43,836
C9	F-750, 4x2, Regular Cab, Tractor Configuration	$49,921
C10	F-59, Stripped Chassis, Gas Engine	$19,465
C11	E-450 Cutaway Van Chassis, Gas Engine	$20,574

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FORD

Contractor: Grande Truck Center

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
C2	F-450, 4x2, Regular Cab, Diesel Engine	$31,730

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FREIGHTLINER

Contractor: Doggett Freightliner of South Texas, LLC

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
D10	MT45 Stripped Chassis	$45,487
D11	MT55 Stripped Chassis	$48,482

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FREIGHTLINER

Contractor: Houston Freightliner, Inc.

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
D1	108SD-70, Conv. Cab, SBFA, SRA	$63,924
D2	108SD-80, Conv. Cab, SBFA, TRA	$73,872
D3	114SD, Conv. Cab, SFFA, SRA	$77,539

(F): 210-661-0226
Click here for Email

- **Tyler Motor Company Inc.**
  Dave Hall
  (P): 903-592-6151
  (F): 903-952-5092
  Click here for Email

D4	122SD, Conv Cab, SFFA, TRA	$91,973
D5	M2-106-60, Conv. Cab, SBFA, SRA	$57,272
D6	M2-106-70, Conv. Cab, SBFA, SRA	$59,658
D7	M2-106-80, Conv. Cab, SBFA, TRA:	$69,353
D8	M2-112, Conv. Cab, SBFA, TRA	$74,735
D9	Cascadia CA113-DC, Conv Cab Tractor, SBFA, TRA	$89,634

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HINO

Contractor: Tyler Motor Co., Inc.

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
E1	155, COE, SRA	$39,959
E2	195, COE, SRA	$45,925
E3	238, Conv. Cab, SRA	$56,965
E4	258LP, Conv. Cab, SRA	$58,250
E5	258ALP, Conv. Cab, SRA	$59,650
E6	268, Conv. Cab, SRA	$58,465
E7	268A, Conv. Cab, SRA	$58,865
E8	338, Conv. Cab, SRA	$61,450

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INTERNATIONAL

Contractor: Santex Truck Centers, LTD

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
F1	DuraStar 4300, Conv. Cab, SBFA, 4x2	$54,704
F2	DuraStar 4400, Conv. Cab, SBFA, 4x2	$78,191
F3	Durastar 4400, Conv. Cab, SBFA, 6X4	$68,202
F4	WorkStar 7300, Conv. Cab, SBFA, 4x2	$55,331
F5	WorkStar 7300, Conv. Cab, SFFA, 4x4	$77,060
F6	WorkStar 7400, Conv. Cab, SBFA, 4x2	$62,488
F7	WorkStar 7400, Conv. Cab, SFFA, 4x4	$84,365
F8	WorkStar 7400, Conv. Cab, SBFA, 6x4	$68,026
F9	WorkStar 7500, Conv. Cab, SBFA, 4x2	$67,033
F10	WorkStar 7500, Conv. Cab, SFFA, 4x4	$97,785
F11	WorkStar 7500, Conv. Cab, SBFA, 6x4	$70,992
F12	WorkStar 7600, Conv. Cab, SBFA, 4x2	$78,808
F13	WorkStar 7600, Conv. Cab, SBFA, 6x4	$82,838
F14	HX615, 6X4	$90,467
F15	HX620, 6X4	$96,719
F16	TransStar 8600, Conv. Cab, SBFA, 4x2	$79,806
F17	TransStar 8600, Conv. Cab, SBFA, 6x4	$84,164
F18	ProStar+ 113, Conv. Cab, 6x4	$88,837
F19	ProStar+ 122, Conv. Cab, 6x4	$90,538

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ISUZU

Contractor: Rush Truck Centers of Texas, LP, Rush Truck Centers of Arizona, Inc. dba Rush Truck Center, Phoenix

H-GAC PRODUCT CODE	BASE UNIT (CAB-CHASSIS) DESCRIPTIONS	BASE UNIT PRICE
G1	NPR, COE, SRA, Gas	$32,150
G2	NPR-HD, COE, SRA, Gas	$34,056

Bodies Available on HT06-16 - General Highlights	Chastang Enterprises	Cleveland Mack Sales / Perfor' Truck	Doggett	French-Ellison	Grande TC	Holt Texas	Houston Freightliner	Love Field DJR	Rush TC	Santex TC	Tyler Motor Co.
Dark cells denote vendor having priced the associated general body type.											
Platform / Flatbed-Stake (std. and/or dump) (e.g. Supreme; Ox)	■	■	■	■	■	■	■	■	■	■	■
Dump Truck (e.g. Davis, Rugby, Ox, Warren, Ledwell; Goodwin)	■	■	■	■	■	■	■	■	■	■	■
Cement Mixer (e.g. Continental; McNeilus; Beck; Cementech)		■		■	■	■	■		■	■	
Service/Utility (e.g. Knapheid, Reading; RKI; Stahl)	■	■	■	■	■	■		■		■	■
Aerial Lift / Man-Lift (e.g. Terex; UTEM; Altec; Versalift)	■	■		■	■	■	■			■	
Wrecker / Carrier (e.g. Jerr-Dan; Century; Holmes; Vulcan; Lecolift)	■			■		■			■	■	
Cranes / Hoists and Associated Bodies (e.g. Altec)	■	■	■	■	■	■	■	■	■	■	■
Water/Fuel/Lube Tank (e.g. Ledwell)	■	■	■	■	■	■	■		■	■	■
Van (std. and/or refrigerated) (e.g. ABC; Morgan; Utilimaster; Hercules; W&B; Supreme)	■	■	■	■		■	■		■	■	■
Landscape / Trash / Brush (std and/or dump) (e.g. Ox; Ledwell; Supreme; Davis; Rugby)	■	■					■		■	■	
Digger-Derrick (e.g. Altec)		■		■			■				

RE: Contracts HT06-16

From : Jennifer Lundy <Jennifer.Lundy@h-gac.com> Thu, Aug 18, 2016 04:29 PM
Subject : RE: Contracts HT06-16 3 attachments
To : Loleta Chappel <Loleta.Chappel@h-gac.com>, Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>

Rudy,

Per our phone conversation, please see attached HT06-16 contracts for Doggett Freightliner of South Texas, LLC and Houston Freightliner, Inc.

Enjoy your day!

Jennifer Lundy
Contract Specialist
H-GAC Cooperative Purchasing Program
Ph: 832.681.2667
Fx: 713.993.2424
cpcontractfax@h-gac.com

From: Chappel, Loleta
Sent: Thursday, August 18, 2016 4:12 PM
To: Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>
Cc: Lundy, Jennifer <Jennifer.Lundy@h-gac.com>
Subject: RE: HGACBUY FEE SCHEDULE- HGACBuy Pricing HT06-16

Hi Rudy

The person that usually sends this contract information is out so I am forwarding this email to Jennifer Lundy to help you.

Thank You

Loleta Chappel
Procurement Service Specialist
Direct 713-993-2486
Fax 713-993-4548
www.hgacbuy.org
HGACBuy THE SMART PURCHASING SOLUTION

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightliner Inc		

*** Offerer should reference this Invitation's Section-B, subsection 12 ***

(1) Bid each option item on a single, separate line. Inserting additional lines as necessary.

(2) No handwritten entries.

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(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.

HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE

NOTE: On Form E-1, Offeror shall include the specific chassis manufacturer price book options code for every option listed. Offeror shall also include sufficient descriptions so as to distinguish each option from other similar ones. Failure to do above may result in any give pried option being omitted form an awarded contract. This is especially crucial for certain options, such as engines and transmissions (e.g. there may be numerous versions of a given transmission within the same "series" and gear pack (10-sp, 13-sp, etc). If an option description is vague or incomplete in the context of a manufacturer's options "series" then HGAC will assume that the price applies to all options within that series. For example, an Eaton-Fuller upgrade axle option from the chassis manufacturer is coded as "#123-456", but this number covers numerous versions. It is incumbent upon the Offeror to suffienently detail the specifics / distinguish from other priced options, otherwise HGAC will assume the bid price applies to all versions within a series. Options that do not include part codes (or other data called for on this form) may be excluded from an H-GAC contract award. Failure to include a thorough list of priced manufacture options may result in a non-compliant assessment for a given model, or overall (Reference Section-B, subsection 11.0).

Example

X1 - X5	Meritor	RT46-160	MER-RT46160-DL	46,000# TRA, diff lock	
D1-D8	Freightliner	019-001		Trailer Towing Package	854
D1-D8	Freightliner	002-002		Tractor Configuration	1,548
D1-D8	Donaldson	014-1B5		Air Intake with Donaldson High Capacity Air Cleaner and Safety Element	75
D1-D8	Delco Remy	124-1DJ		160 Amp 36-SI Brushless Alternator	128
D1-D8	Delco Remy	124-1E1		200 Amp 28-SI Quadramount Alternator	165
D1-D8	Delco Remy	124-1E8		240 Amp 28-SI Quadramont Alternator	365
D1-D8	Delco Remy	124-1CE		320 Amp 4962PA Pad MT Alternator	752
D1-D8	Freightliner	282-042		Mount Batteries 36" - 60" BOC	273
D1-D8	Freightliner	293-058		Battery Disconnect MTD LH of Driver Seat	205 ✓
D1-D8	Freightliner	293-061		Battery Disconnect MTD LH near Battery Box	205
D1-D8	Alliance	292-098	1231	(2) Group 31 12v, 2200 CCA Batteries	29
D1-D8	Alliance	292-1EJ	9A31	(2) Absorbed Glass, Group 31 12v, 1850 CCA Batteries	185
D1-D8	Alliance	292-058	1031	(3) Group 31 12v, 2280 CCA Batteries	195
D1-D8	Alliance	292-1AV	7T31	(3) Group 31 12v, 2100 CCA Batteries	253
D1-D8	Alliance	292-1EH	9A31	(3) Absorbed Glass, Group 31 12v 2774 CCA Batteries	391
D1-D8	Alliance	292-072	1231	(4) Group 31 12v, 4400 CCA Batteries	521
D1-D8	Freightliner	33M-001		Aux Power Net Distrbution Block for Body Builder	354
D1-D8	Freightliner	295-026		Positive and Negative Jump Starts	190
D1-D8	Eaton	180-049		Ceramic, 2 Plate Stamped Cover Solo Clutch	446
D1-D8	Eaton	180-048		Ceramic, 1 Plate Stamped Cover Solo Clutch	168
D1-D8	Cummins	128-076		Exhaust Brake	34
D1-D8	Jacobs	128-032		Compression Brake	N/C
D1-D8	Freightliner	016-1C0		RH outboard Mtd Vertical Aftertreatment System with Topstack	850
D1-D8	Freightliner	016-1C2		RH Outboard Under Step Mtd Horizontal aftertreatment with vertical stack	629 ✓
D1-D8	Freightliner	016-1DC		RH Outboard Under Step Mtd Horizontal Aftertreatment Device with Horizontal pipe exiting forward of rear wheels	192
D1-D8	Freightliner	233-001		Bright Upper Stacks	189
D1-D8	Freightliner	23U-002		13 Gallon DEF Tank	80

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightliner Inc		

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D1-D8	Freightliner	23U-003		23 Gallon DEF Tank	195
D1-D8	Freightliner	23Z-002		Alum Diamond Plate DEF Tank Cover	158
D1-D8	Freightliner	23Z-001		Polished Alum Diamond Plate DEF Tank Cover	215
D1-D8	Freightliner	43X-003		Locate DEF Tank 24-52" Behind Cab	105
D1-D8	Horton	237-018		Horton Drivemaster On/off Fan Drive	NC
D1-D8	Horton	273-044		Horton EC600 Corsair Engine Fan Drive	265
D1-D8	Freightliner	266-027		1000 Sq In Radiator	32
D1-D8	Freightliner	266-013		1100 Sq In Radiator	48
D1-D8	Philips-Temro	138-010		700 Watt/115 Volt Block Heater	86
D1-D8	Philips-Temro	138-011		1000 Watt/115 Volt Block Heater	157
D1-D8	Philips-Temro	166-002		150 Watt/115 Volt Oil Preheater	110
D1-D8	Delco Remy	155-055		12v 39 MT HD/OCP Starter with Thermal Protection	60
D1-D8	Freightliner	353-022		Vehicle Interface Wiring with Body	
D1-D8				Builder Connector mtd BOC	69
D1-D8	Freightliner	353-023		Vehicle Interface Wiring with Body	
D1-D8				Builder Connector mtd EOF	85
D1-D8	Freightliner	353-026		Vehicle Interface Wiring and PDM	
D1-D8				with Body Builder Connector mtd BOC	725
D1-D8	Freightliner	353-027		Vehicle Interface Wiring and PDM	
D1-D8				with Body Builder Connector mtd EOF	745
D1-D8	Freightliner	34C-001		Electronic Transmission Transmission Access Connector BOC	60
D1-D8	Freightliner	34C-002		Electronic Transmission Transmission Access Connector Firewall Mtd	155
D1-D8	Freightliner	34C-003		Electronic Transmission Transmission Access Connector End of Frame	164
D1-D8	Meritor	373-037	4213X	2 Speed Transfer Case	8,800
D1-D8	Meritor	373-038	4210XP	2 Speed Transfer Case	9,757
D1-D8	Wabco	490-101		4S?4M ABS with Traction Control	161
D1-D8	Wabco	490-107		4S/4M ABS with Traction Control with Hill Start	797
D1-D8	Bendix	480-009		AD-9 Air Dryer	290 ✓
D1-D8	Bendix	480-034		AD-IP Air Dryer	290
D1-D8	Bendix	480-047		AD-IS Air Dryer	416
D1-D8	Wabco	480-083		SS-1200 Air Dryer	195
D1-D8	Freightliner	460-007		Aluminum Air Tanks	208
D1-D8	Freightliner	460-058		Steel Air Tanks mtd aft inside and/or below frame	176
D1-D8	Bendix	477-003		DV-2 Auto Drain Valve-Wet Tank	85
D1-D8	Bendix	477-006		DV-2 Auto Drain Valve-All Air Tanks	91
D1-D8	Freightliner	485-001		External Charging Glad Hand	88
D1-D8	Freightliner	485-003		Quick Disconnect Fitting w/ Tire Inflator	153
D1-D8	Freightliner	481-003		12' Coiled Air and Electric Lines	0
D1-D8	Freightliner	30k-015		2-Way HD 150 Amp Receptacle wired Hot, LH Rail BOC	160
D1-D8	Freightliner	30k-027		2-Way HD 150 Amp Receptacle wired Hot, LH Rail EOF	190

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc		

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D1-D8	Freightliner	30k-043		1-Way 150 Amp Receptacle wired Hot, LH Rail BOC	202
D1-D8	Freightliner	30k-055		1-Way 150 Amp Receptacle wired Hot, LH Rail EOF	163
D1-D8	Freightliner	452-004		Driver Controlled Differential Lock (One Axle)	475
D1-D8					
D1-D8	Freightliner			155-165" Wheelbase	165
D1-D8	Freightliner			166-184" Wheelbase	402
D1-D8	Freightliner			185-205" Wheelbase	656
D1-D8	Freightliner			206-230" Wheelbase	812
D1-D8	Freightliner			231-254" Wheelbase	1028
D1-D8	Freightliner			255-270" Wheelbase	1228
D1-D8	Freightliner			271"-299" Wheelbase	1870
D1-D8	Freightliner	546-093		11/32x3-7/16x10-3/16" Frame 80KSI	110
D1-D8	Freightliner	546-100		11/32x3-1/2x10-3/16" Frame 120KSI	125
D1-D8	Freightliner	546-092		11/32x3-1/2x10-5/16" Frame 80KSI	145
D1-D8	Freightliner	546-101		11/32x3-1/2x10-5/16" Frame 120KSI	155
D1-D8	Freightliner	546-102		7/16x3-9/19x11-1/8" Frame 120KSI	560
D1-D8	Freightliner	547-001		1/4" Inner Frame Reinforcement	650
D1-D8	Freightliner	549-090		PDI Installed Front Frame Extension	1,150
D1-D8	Freightliner	587-003		Rear Tow Hooks	40
D1-D8	Freightliner	556-1A4		3 Piece Chromed Steel Bumper with Collapsible Ends & LH/RH Cut Outs for Federal FM100 Speakers	79
D1-D8	Freightliner	556-1AP		3 Piece Painted Steel Front Bumper	95
D1-D8	Freightliner	556-1CK		3 Piece Chromed Steel Bumper with Air Dam	254
D1-D8	Freightliner	556-1AR		3 Piece Chromed Steel Bumper with Collapsible Ends & LH/RH Cut Outs for Federal FM100 Speakers	295
D1-D8	Freightliner	558-001		Front Tow Hooks	95
D1-D8	Freightliner	551-002		Huck Spin Chassis Fasteners	193
D1-D8	Freightliner	583 056		Stainless Steel Quarter Fenders	185
D1-D8	Freightliner	583-058		Plastic Quarter Fenders	95
D1-D8	Fontaine	578-391	6A36	NO Slack 6000 Series Stationary Fifth Wheel	634
D1-D8	Jost	578-1B3	JSK37	Flat Plate Stationary Fifth Wheel	775
D1-D8	Jost	578-1CF	JSK37	Air Slide Fifth Wheel	1,132
D1-D8	Freightliner	578-192		RH 50 Gallon Fuel Tank	590
D1-D8	Freightliner	206-195		RH 60 Gallon Fuel Tank	425
D1-D8	Freightliner	206-034		RH 80 Gallon Fuel Tank	545
D1-D8	Freightliner	206-194		RH 100 Gallon Fuel Tank	775
D1-D8	Freightliner	204-195		LH 60 Gallon Fuel Tank	64
D1-D8	Freightliner	204-152		LH 70 Gallon Fuel Tank	129
D1-D8	Freightliner	204-034		LH 80 Gallon Fuel Tank	175
D1-D8	Freightliner	204-194		LH 100 Gallon Fuel Tank	375
D1-D8	Freightliner	203-006		60 Gallon Hydraulic Reservoir	504
D1-D8	Freightliner	205-003		Locking Fuel Cap	43
D1-D8	Instaheat	220-048		Fuel Heater	441

FORM E-1: Chassis Manufacturer Options Pricing	Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc	

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D1-D8	Alliance	122-077		Fuel/Water Separator with Heated Bowl and Primer Pump	84
D1-D8	Alliance	122-076		Fuel/Water Separator with Heated Bowl	11
D1-D8	Alliance	122-084		Fuel/Water Separator with Heated Bowl, Primer Pump and Indicator Lamp	44
D1-D8	Davco	122-101	382F	Fuel/Water Separator w/Thermatic Control	301
D1-D8	Davco	122-1F8	243	Fuel/Water Separator	215
D1-D8	Davco	122-1F9	243	Fuel/Water Separator with Heater	249
D1-D8	Davco	122-1G0	243	Fuel/Water Separator with ESOC	277
D1-D8	Freightliner	20E-001		Aux Fuel Supply and Return Ports	57
D1-D8	Freightliner	221-001		Fuel Cooler	184
D1-D8	Freightliner	829-075		132" High Roof Extended Cab	4,253
D1-D8	Freightliner	829-079		154" High Roof Crew Cab	7,591
D1-D8	Freightliner	682-050		Walk Thru Opening BOC	457
D1-D8	Freightliner	784-001		Brackets only for Airshield Roof Deflector	323
D1-D8	Freightliner	784-032		Airshield Roof Deflector Not Installed	382
D1-D8	Freightliner	650-003		Leaf Spring Rear Cab Suspension	186
D1-D8	Freightliner	650-008		Air Cab Mounts	118
D1-D8	Freightliner	648-002		Nonremoveable Bugscreen behind grille	46
D1-D8	Freightliner	648-001		Front Removable Bug Screen	67
D1-D8	Freightliner	754-008		2-1/2" Fender Extensions	215
D1-D8	Freightliner	678-001		LH/RH Cab Grab Handles	57
D1-D8	Freightliner	678-018		LH/RH Cab Grab Handles w/ Inserts	131
D1-D8	Freightliner	646-023		Hood Mounted Chrome Grille	83
D1-D8	Freightliner	646-011		Stationary Grille	245
D1-D8	Freightliner	727-1AF		Single Air Horn Under Cab	75
D1-D8	Freightliner	727-1AH		Single 14" Air Horn Roof Mtd	105
D1-D8	Freightliner	727-1AM		Dual 24" Air Horns Roof Mtd	120
D1-D8	Freightliner	727-180		Dual 25" Stutter Tone Hood Mtd Air Horns	353
D1-D8	Freightliner	657-1A0		All Locks Keyed Alike	27
D1-D8	Freightliner	327-1AA		PDI Installed Pre Wire PKG for Light Bar	675
D1-D8	Freightliner	302-047		LED Marker Lights	29
D1-D8	Freightliner	315-058		Amber Fog Lights	90
D1-D8	Freightliner	315-061		Clear Fog Lights	80
D1-D8	Freightliner	311-001		Daytime Running Lights	23
D1-D8	Freightliner	294-042		LED Stop/Tail/ Backup Lights	95
D1-D8	Freightliner	744-1BN		Dual West Coast Bright Mirrors	67
D1-D8	Freightliner	744-1BC		Dual West Coast Bright Mirrors with LH and RH Remote	224
D1-D8	Freightliner	744-1BM		Dual West Coast Bright Finish Heated Mirrors	183
D1-D8	Freightliner	743-1AP		LH/RH 8" Convex Molded In Color Mirrors	13
D1-D8	Freightliner	74A-001		RH Downview Mirror	38
D1-D8	Sure Plus	74B-080		LH/RH 8" Bright Convex Fender Mirrors	117
D1-D8	Freightliner	677-016		Dual Level Cab Entry Steps, Both Sides	228
D1-D8	Freightliner	764-010		Front Sun Visor	187
D1-D8	Freightliner	764-018		Bright Front Sun Visor	409
D1-D8	Freightliner	654-011		LH/RH Electric Windows	147

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc		

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D1-D8	Freightliner	769-002		Lower RH Door with Fresnel Lens	194
D1-D8	Freightliner	706-026		Aluminum Kick Panels LH Side	19
D1-D8	Freightliner	708-026		Aluminum Kick Panels RH Side	19
D1-D8	Freightliner	696-015		Center Storage Console	19
D1-D8					
D1-D8					
D1-D8	Freightliner	696-006		Between Seat File/Desk Storage	390
D1-D8	Freightliner	720-002		2 1/2 lb Fire Extinguisher	38
D1-D8	Freightliner	720-003		5 lb Fire Extinguisher	59
D1-D8	Freightliner	700-002		Air Conditioner	850 ✓
D1-D8	Freightliner	170-045		Std Heater Plumbing with Ball Shut Off Valves at Supply Line	25
D1-D8	Freightliner	739-028		Extreme Cab Insulation	62
D1-D8	Freightliner	324-074		LH/RH Door Activated Dome Lite with 3-Way Switch	82
D1-D8	Freightliner	324-1AJ		LH/RH Door Activated Dome Lite with Reading Lites and Courtesy Lites	138
D1-D8	Freightliner	655-005		LH/RH Electric Door Locks	71
D1-D8	Freightliner	284-023		12v Power Supply in Dash	14
D1-D8	Freightliner	284-045		(2) 12v Power Receptacles in Dash	48
D1-D8	Freightliner	722-002		Triangle Reflectors without Flares	18
D1-D8	Seats Inc	756-1J3	910	Basic HighBack Air Driver Seat	165 ✓
D1-D8	Freightliner	756-155		Full Width Bench Seat w/ Folding Back	N/C
	Seats Inc	756-1D9		Premium High Back Driver Seat	200
D1-D8	National	756-167	2000	2000 Series Easy-Aire Driver Seat	175
D1-D8	Freightliner	760-235		2 Man Passenger Seat	178 ✓
D1-D8	Seats Inc	760-1J2		Basic High Back Air Susp Pass Seat	165
D1-D8	Seats Inc	760-1DC	910	Basic Air Pasesenger Seat	N/C
D1-D8	Seats Inc	760-1D9		Premium High Back Passenger Seat	300
D1-D8	Freightliner	762-239		(2) Fold Up Forward Facing Rear Seats	25
D1-D8	Freightliner	762-155		Full Rear Bench Seat	291
D1-D8	Freightliner	758-014		Black Cordura Plus Dr Seat Cover	18
D1-D8	Freightliner	761-014		Black Cordura Plus Pass Seat Cover	18
D1-D8	Freightliner	755-014		Black Cordura Plus RR Seat Cover	18
D1-D8	Freightliner	763-012		Orange Visibility Seat Belts	25
D1-D8	Freightliner	532-002		Adjustable Steering Column	376
D1-D8	Freightliner	198-003		Dash Mtd Air Restriction Indicator	17
D1-D8	Preco	721-001		Back Up Alarm	60
D1-D8	Preco	721-003		Self Adjusting Back Up Alarm	109
D1-D8	Freightliner	33A-802		Wiring Provision for Cust Furnished Strobe Light	150
D1-D8	Stemco	438-001		Mechanical Hubobometer	68
D1-D8	Freightliner	679-001		Overhead Instrument Panel	47
D1-D8	Delphi	746-181		AM/FM/WB Sirius Premium Radio	525
D1-D8	Freightliner	746-1B3		AM/FM/WB Radio with Bluetooth Microphone Radio	225 ✓
D1-D8	Freightliner	746-1A1		AM/FM/WB CD/MP3 Premium Radio	375
D1-D8	Freightliner	812-001		Electronic 3000 RPM Tachometer	62

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc		

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D1-D8	Meritor	498-004		Enhanced Stability Control	850
D1-D8	Freightliner	3229-007		One Aux Rocker Switch on Dash	65
D1-D8	Goodyear	093-0KR		11R22.5 14 Ply G282 FR Tires	102
D1-D8	Michelin	093-1AX		11R22.5 16 Ply XZE2 FR Tires	259
D1-D8	Continental	093-1P2		11R22.5 14 Ply HSL2 FR Tires	38
D1-D8	Goodyear	093-1GA		11R22.5 16 Ply G399 FR Tires	125
D1-D8	Goodyear	093-1KR		11R22.5 16 Ply G282 MSD Fr Tires	191
D1-D8	Michelin	093-0DJ		11R22.5 16 Ply XDE M/S FR Tires	243
D1-D8	Michelin	093-2CC		315/80R22.5 20 Ply XZU-S2 FR Tires	623
D1-D8	Michelin	093-0TA		385/65R22.5 18 Ply XZY-3 Fr Tires	700
D1-D8	Michelin	093-1E2		425/65R22.5 Michelin XZY	471
D1-D8	Goodyear	094-1DG		11R22.5 14 Ply G338 RR Tires	179
D1-D8	Michelin	094-0DH		11R22.5 14 Ply XDE M/S RR Tires	255
D1-D8	Goodyear	094-0VE		11R22.5 16 PLY G288 RR Tires	257
D1-D8	Michelin	094-0DJ		11R22.5 XDE- MS RR Tires	320
D1-D8	Michelin	094-0TD		315/80R22.5 20 Ply XZU-3 RR Tires	778
D1-D8	Michelin	094-2CC		315/80R22.5 20 Ply XZU-S2 RR Tires	3,258
D1-D8	Freightliner	549-048		24" Front Frame Extension w/ Insert	173
D1-D11				Specially Manufactured Body per Customer Specifications NOT listed in Body Option Section	Sold at Cost
D1	Cummins	101-2NT		ISB 250 HP 660 LB FT TQ	1,089
D1	Cummins	101-2RJ		ISB 260 HP 660 LB FT TQ	1,983
D1	Cummins	101-2N6		ISB 280 HP 660 LB FT TQ	2,621
D1	Cummins	101-2N7		ISB 300 HP 660 LB FT TQ	3,377
D1	Cummins	101-2N8		ISB 325 HP 750 LB FT TQ	4,758
D1	Cummins	101-2XG		ISL 260 HP 660 LB FT TQ	6,474
D1	Cummins	101-2XF		ISL 270 HP 660 LB FT TQ	7,113
D1	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	7,751
D1	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	8,856
D1	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	11,353
D1	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	9,144
D1	Eaton	342-1P8	FO-5406B DM	6 Speed UltraShift Transmission	1,687
D1	Eaton	342-1P9	FO-6406B DM	6 Speed UltraShift Transmission	3,225
D1	Allison	342-1MG		2500 RDS Auto Transmission	2,661
D1	Allison	342-582		3000 RDS Auto Transmission	7,098
D1	Allison	342-584		3500 RDS Auto Transmission	7,146
D1	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
D1	Detroit	400-1A8	DAF-14-3.4	14,700 LB Front Axle	621
D1	Detroit	400-1A9	DAF-16.0.5	16,000 LB Front Axle	1,400
D1	Freightliner	620-010		14,600 LB Front Suspension	382
D1	Freightliner	400-1BA	DAF 18.0.5	18,000 LB Front Axle	2,013
D1	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
D1	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
D1	Freightliner	620-026		16,000 LB Front Suspension	504

FORM E-1: Chassis Manufacturer Options Pricing				Invitation #:	HT06-16
Offeror Name:	Houston Freightliner Inc				
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(2) No handwritten entries.

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(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.

HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D1	Meritor	420-051	RS-23-160	23,000 LB Rear Axle	510
D1	Meritor	420-022	RS-26-185	26,000 LB Rear Axle	4,020
D1	Meritor	420-024	RS-30-185	30,000 LB Rear Axle	4,478
D1	Freightliner	622-1MH		23,000 LB Multi-Leaf Rear Suspension	1,285
D1	Freightliner	622-001		23,000 LB FlatLeaf Rear Suspension	948
D1	Freightliner	622-284		Airliner 21,000 Rear Suspension	1,301
D1	Freightliner	622-216		Airliner 23,000 Rear Suspension	1,620
D1	Freightliner	622-1DB		30,000 LB Rear Suspension	1,265
D1	Freightliner	452-004		Driver Controlled Differential Lock (One Axle)	475
D2	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	638
D2	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	1,742
D2	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	4,240
D2	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	2,030
D2	Eaton	342-443		RO-11908LL 10 Speed Trans	1,917
D2	Allison	342-582		3000 RDS Auto Transmission	6,146
D2	Allison	342-584		3500 RDS Auto Transmission	6,091
D2	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
D2	Detroit	400-1A8	AF-14-3.4	14,700 LB Front Axle	621
D2	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
D2	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
D2	Freightliner	620-010		14,600 LB Front Suspension	382
D2	Detroit	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,400
D2	Detroit	400-1BA	AF-18.0-5	18,000 LB Front Axle	2,013
D2	Freightliner	620-013		18,000 LB Front Suspension	492
D2	Freightliner	620-004		16,000 LB Flatleaf Front Suspension	504
D2	Detroit	400-1BB	DA-F-20.0-05	20,000 LB Front Axle	3,325
D2	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	1,880
D2	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
D2	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
D2	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
D2	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
D2	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513
D2	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906
D2	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
D2	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
D2	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
D3	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	(8)
D3	Detroit	101-2TJ	DD13	380 HP Multi TQ 1235/1550 LB FT	401
D3	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	329
D3	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	473
D3	Detroit	101-2T0	DD13	450 HP 1550 LB FT TQ	643
D3	Cummins	101-2KA	ISL-G	260 HP 660 LB FT TQ CNG Engine	13,219

FORM E-1: Chassis Manufacturer Options Pricing				Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc				
*** Offerer should reference this Invitation's Section-B, subsection 12 ***					

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(2) No handwritten entries.

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(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.

HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D3	Cummins	101-2J8	ISL-G	300 HP 860 LB FT TQ CNG Engine	14,577
D3	Cummins	101-2J7	ISL-G	320 HP 1000 LB FT TQ CNG Engine	15,030
D3	Cummins	101-2NO	ISL	345 HP 1150 LB FT TQ	(4,494)
D3	Cummins	101-2XN	ISL	370 HP 1250 LB FT TQ	(3,591)
D3	Cummins	101-2XP	ISL	380 HP 1250 LB FT TQ	(3,253)
D3	Eaton	342-412		FR-14210B 10 Speed Transmission	225
D3	Eaton	342-416		FR-15210B 10 Speed Transmission	1,057
D3	Eaton	342-419		FR-16210C 10 Speed Transmission	1,129
D3	Eaton	342-444		RTO-14908LL 10 Speed Trans	2,376
D3	Eaton	342-445		RTO-16908LL 10 Speed Trans	2,650
D3	Eaton	342-1BM		RTLO-16913A 13 Speed Trans	3,486
D3	Allison	342-584		3500 RDS Automatic Trans	7,306
D3	Allison	342-582		3000 RDS Automatic Trans	7,306
D3	Allison	342-1M1		4000 RDS Automatic Trans	16,047
D3	Allison	342-1M3		4500 RDS Automatic Trans	16,958
D3	Alliance	400-1A8	AF-14-3.4	14,700 LB Front Axle	678
D3	Freightliner	620-010		14,600 LB Taperleaf Front Suspension	348
D3	Freightliner	620-003		14,600 LB Flatleaf Front Suspension	315
D3	Alliance	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,374
D3	Freightliner	620-026		16,000 LB Front Suspension	828
D3	Alliance	400-1BA	AF-18.0-5	18,000 LB Front Axle	1,681
D3	Freightliner	620-013		18,000 LB Front Suspension	1,028
D3	Alliance	620-1BB	AF-20.0-5	20,000 LB Front Axle	2,483
D3	Freightliner	620-025		20,000 LB Front Suspension (with 20k Front Axle)	1,085
D3	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	2,726
D3	Meritor	420-051	RS-23-160	23,000 LB Rear Axle	(6,963)
D3	Meritor	420-022	RS-26-185	26,000 LB Rear Axle	(3,641)
D3	Meritor	420-024	RS-30-185	30,000 LB Rear Axle	(2,875)
D3	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
D3	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
D3	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
D3	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
D3	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513
D3	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906
D3	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
D3	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
D3	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
D3	Freightliner	230-064		60 Diesel Equivalent Gallon CNG Tank	30,008
D3	Freightliner	230-063		75 Diesel Equivalent Gallon CNG Tank	33,465
D3	Hendrickson	035-1A1	SC120	20,000 LB Composilite Steerable Pusher Axle	8,170
D3	Hendrickson	035-024	HLM 20	13,200 LB Non Steerable Pusher Axle	5,953
D3	Hendrickson	035-1A0	SC13	13,200 LB Composilite Steerable Pusher Axle	5,991
D3	Freightliner	220-008		LNG fuel Heater/Vaporizer	5,249

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightliner Inc		

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HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D4	Freightliner	002-003		Trailer Towing Package at EOF	701
D4	Detroit	101-2TW	DD13	350 HP 1350 LB FT TQ	(3,013)
D4	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	(3,022)
D4	Detroit	101-2TX	DD13	380 HP 1350 LB FT TQ	(2,756)
D4	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	(2,684)
D4	Detroit	101-2TJ	DD13	380 HP Multi TQ 1350/1550	(2,612)
D4	Detroit	101-2TY	DD13	410 HP 1450 LB FT TQ	(2,612)
D4	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	(2,540)
D4	Detroit	101-2TG	DD13	410 HP 1650 LB FT TQ	(2,468)
D4	Detroit	101-2TK	DD13	410 HP Multi TQ 1450/1650	(2,468)
D4	Detroit	101-2TF	DD13	435 HP 1550 LB FT TQ	(2,432)
D4	Detroit	101-2T0	DD13	450 HP 1550 LB FT TQ	(2,369)
D4	Detroit	101-2T1	DD13	450 HP 1650 LB FT TQ	(2,167)
D4	Detroit	101-2V8	DD15	455HP 1650 LB FT TQ	419
D4	Detroit	101-2WB	DD15	455 HP Multi TQ 1550/1750	478
D4	Detroit	101-2V9	DD15	475HP 1650 LB FT TQ	478
D4	Detroit	101-2WC	DD15	475/505 HP Multi TQ 1650	717
D4	Detroit	101-2V1	DD15	505 HP 1550/1750 LB FT TQ	550
D4	Detroit	101-2WA	DD15	505 HP 1650 LB FT TQ	550
D4	Detroit	101-2WH	ISX	425 HP 1650 LB FT TQ	592
D4	Detroit	101-2WM	ISX	450 HP 1550 LB FT TQ	675
D4	Detroit	101-2WW	ISX	485 HP 1650 LB FT TQ	1,128
D4	Detroit	101-2W0	ISX	500 HP 1650 LB FT TQ	1,581
D4	Detroit	292-1E4	8A31	(4) Glass Mat Batteries	305
D4	Eaton	180-094		15 1/2" Ceramic Solo VCTPlus Adjustment Free Clutch	261
D4	Freightliner	293-058		Positive Load Battery Disconnect In Cab	157
D4	Freightliner	23Z-002		Non Polished DEF Tank Cover	162
D4	Freightliner	23U-003		23 Gal DEF Tank	101
D4	Horton	273-018		Drivemaster on/off Fan Drive	40
D4	Philips Temro	138-041		1500 Watt/115 Volt Block Heater	115
D4	Fuller	342-1YB		FO-16E313A-VHP Ultrashift Plus	8,606
D4	Fuller	342-1Y7		FO-16E310C-VAS Ultrashift Plus	7,167
D4	Fuller	342-445		RTO-16908LL 10 Speed	2,042
D4	Allison	342-1M1		4000 RDS Auto Trans	15,324
D4	Allison	342-1M3		4500 RDS Auto Trans	16,314
D4	Meritor	400-099	MFS-14-143A	14700 LB Front Axle	797
D4	Freightliner	620-021		14000 LB Front Suspension	358
D4	Freightliner	400-1A9	AF-16.0-05	16,000 LB Front Axle	1,578
D4	Freightliner	620-026		16,000 LB Taperleaf Front Suspension	502
D4	Freightliner	400-1BA	DA-F-18.8-05	18,000 LB Front Axle	1,725
D4	Freightliner	620-013		18,000 LB Taperleaf Front Suspension	668
D4	Freightliner	400-1BB	DA-F-20.0-5	20,000 LB Front Axle	2,440
D4	Freightliner	620-025		20,000 LB Taperleaf Front Suspension	728
D4	Meritor	420-074	RT-40-160	40,000 LB Rear Axle	3,050
D4	Meritor	420-162	RT-40-145A	40,000 LB Rear Axle with Aluminum Carrier	570

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	**Houston Freightiner Inc**		

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HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D4	Meritor	420-075	RT-40-160P	40,000 LB Rear Axle with Pump	3,278
D4	Detroit	420-1GT	ART-44.0-4	44,000 LB Rear Axle	770
D4	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	2,831
D4	Meritor	420-111	RT-46-160P	46,000 LB Rear Axle with Pump	3,073
D4	Meritor	420-051	RS-23-160	23,000 LB Single rear Axle	(6,757)
D4	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
D4	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
D4	Detroit	386-044	RPL25	HD Main Driveline	227
D4	Detroit	452-006		Driver Controlled Traction Differential- Both Axles	905
D4	Detroit	425-002		Rear Brake Dust Shields	76
D4	Detroit	622-218		40,000 LB HD Air Suspension	260
D4	Detroit	622-108		46,000 LB Air Suspension	665
D4	Detroit	622-216		23,000 LB Air Suspension	0
D4	Detroit	490-101		4S/4M ABS with Hill Start and Traction Control	765
D4	Detroit	490-035		6S/6M ABS with Hill Start and Traction Control	1,064
D4	Detroit	480-009		AD-9 Air Dryer	37
D4	Detroit	480-047		AD-IS Air Dryer	135
D4	Detroit	460-007		Aluminum Air Tanks	356
D4	Detroit	914-002		Trailer Connections at EOF	158
D4	Detroit	546-093		11/32x3-1/2x10-3/16" Frame 80KSI	180
D4	Detroit	546-100		11/32x3-1/2x10-3/16" Frame 120KSI	198
D4	Detroit	546-101		11/32x3-1/2x10-5/16" Frame 120KSI	457
D4	Detroit	546-102		7/16x3-9/19x11-1/8" Frame 120KSI	934
D4	Detroit	547-001		1/4" Inner Frame Reinforcement	850
D4	Detroit	585-1AJ	B-7	Stainless Steel Mudflap Brackets	48
D4	Detroit	583-057		Stainless Steel Quarter Fenders	150
D4	Detroit	583-058		Plastic Quarter Fenders	77
D4	Detroit	602-076		28" Locking Toolbox	569
D4	Detroit	206-158		120 Gallon Fuel Tank RH Side	205
D4	Detroit	206-162		150 Gallon Fuel Tank RH Side	252
D4	Detroit	204-158		120 Gallon Fuel Tank lH Side	168
D4	Detroit	204-162		150 Gallon Fuel Tank lH Side	378
D4	Alliance	122-078		Fuel/Water Separator with Indicator Light	95
D4	Alliance	122-079		Fuel/Water Separator with Heated Bowl and Indicator Lamp	186
D4	Alliance	122-084		Fuel/Water Separator with Heated Bowl, Primer Pump and Indicator Lamp	226
D4	Davco	122-1F1		482 Fuel/Water Separator	375
D4	Davco	122-1F2		482 Fuel/Water Separator w/Pre Heater	507
D4	Goodyear	093-2AU	LHS	11R24.5 FR Tires	162
D4	Goodyear	094-1U5	661	11R24.5 FR Tires	128
D4	Goodyear	094-0WF	G182	11R24.5 RR Tires	375
D4	Goodyear	094-2AU	G399	11R24.5 RR Tires	650
D4	Michelin	094-0RD	XZY-3	11R24.5 RR Tires	1,802

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc		

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HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D4	Accuride	502-1EH	98367	22.5x8.25 Aluminum FR Wheels	352
D4	Accuride	505-1EF	88367	22.5x8.25 Aluminum RR Wheels	1,123
D4	Accuride	502-333	29362	24.5x8.25 Aluminum FR Wheels	338
D4	Accuride	505-333	29362	24.5x8.25 Aluminum RR Wheels	1,353
D4	Freightliner	727-066		Dual 26" Air Horns	98
D4	Freightliner	294-086		LED Stop/Tail/Turn Lights	63
D4	Freightliner	744-1C6		Dual Bright Mirrors with LH/RH Remote	78
D4	Detroit	764-016		Exterior Sun Visor	165
D4	Detroit	720-002		2 1/2 lb Fire Extinguisher	45
D4	Detroit	720-003		5 lb Fire Extinguisher	56
D4	Detroit	655-005		Electric Door Locks	64
D4	Detroit	746-1AN		AM/FM/WB Sirius Premium Radio	546
D4	Detroit	746-1AF		AM/FM Radio	227
D4	Detroit	746-1AG		AM/FM/WB CD/MP3 Premium Radio	374
D5	Cummins	101-2N3		ISB 220 HP 520 LB FT TQ	696
D5	Cummins	101-2GD		ISB 240 HP 560 LB FT TQ	1,246
D5	Cummins	101-2NT		ISB 250 HP 660 LB FT TQ	2,047
D5	Cummins	101-2RJ		ISB 260 HP 660 LB FT TQ	2,807
D5	Cummins	101-2N6		ISB 280 HP 660 LB FT TQ	3,568
D5	Cummins	101-2N7		ISB 300 HP 660 LB FT	4,125
D5	Cummins	101-2N8		ISB 325 HP 660 LB FT TQ	5,210
D5	Cummins	101-2XG		ISL 260 HP 720 LB FT TQ	7,755
D5	Cummins	101-2XF		ISL 270 HP 800 LB FT TQ	8,229
D5	Cummins	101-2XE		ISL 300 HP 860 LB FT TQ	8,893
D5	Eaton	342-1CA	FS-5406A	6 Speed Manual Transmission	785
D5	Eaton	342-1P9	FO-6406B DM	6 Speed UltraShift Transmission	3,059
D5	Allison	342-1MG		2500 RDS Auto Transmission	2,661
D5	Allison	342-582		3000 RDS Auto Transmission	7,098
D5	Allison	342-584		3500 RDS Auto Transmission	7,146
D5	Freightliner	018-002		Air Brakes	824
D6	Cummins	101-2NT		ISB 250 HP 660 LB FT TQ	1,089
D6	Cummins	101-2RJ		ISB 260 HP 660 LB FT TQ	1,983
D6	Cummins	101-2N6		ISB 280 HP 660 LB FT TQ	2,621
D6	Cummins	101-2N7		ISB 300 HP 660 LB FT TQ	3,377
D6	Cummins	101-2N8		ISB 325 HP 750 LB FT TQ	4,758
D6	Cummins	101-2XG		ISL 260 HP 660 LB FT TQ	6,474
D6	Cummins	101-2XF		ISL 270 HP 660 LB FT TQ	7,113
D6	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	7,751
D6	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	8,856
D6	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	11,353
D6	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	9,144
D6	Eaton	342-1P8	FO-5406B DM	6 Speed UltraShift Transmission	1,687
D6	Eaton	342-1P9	FO-6406B DM	6 Speed UltraShift Transmission	3,225

FORM E-1: Chassis Manufacturer Options Pricing				Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc				

*** Offerer should reference this Invitation's Section-B, subsection 12 ***

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(2) No handwritten entries.

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(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.

HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D6	Allison	342-1MG		2500 RDS Auto Transmission	2,661
D6	Allison	342-582		3000 RDS Auto Transmission	7,098
D6	Allison	342-584		3500 RDS Auto Transmission	7,146
D6	Allison	342-1KD		3000 EVS Auto Transmission	8,351
D6	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
D6	Detroit	400-1A8	DAF-14-3.4	14,700 LB Front Axle	621
D6	Detroit	400-1A9	DAF-16.0.5	16,000 LB Front Axle	1,400
D6	Freightliner	620-010		14,600 LB Front Suspension	382
D6	Freightliner	400-1BA	DAF 18.0.5	18,000 LB Front Axle	2,013
D6	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
D6	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
D6	Freightliner	620-026		16,000 LB Front Suspension	504
D6	Meritor	420-051	RS-23-160	23,000 LB Rear Axle	510
D6	Meritor	420-022	RS-26-185	26,000 LB Rear Axle	4,020
D6	Meritor	420-024	RS-30-185	30,000 LB Rear Axle	4,478
D6	Freightliner	622-1MH		23,000 LB Multi-Leaf Rear Suspension	1,285
D6	Freightliner	622-001		23,000 LB FlatLeaf Rear Suspension	948
D6	Freightliner	622-284		Airliner 21,000 Rear Suspension	1,301
D6	Freightliner	622-216		Airliner 23,000 Rear Suspension	1,620
D6	Freightliner	622-1DB		30,00 LB Rear Suspension	1,265
D6	Freightliner	452-004		Driver Controlled Differential Lock (One Axle)	475
D7	Cummins	101-13N		ISL 300 HP 860 LB FT TQ	638
D7	Cummins	101-2G3		ISL 330 HP 1000 LB FT TQ	1,742
D7	Cummins	101-2N0		ISL 345 HP 1150 LB FT TQ	4,240
D7	Cummins	101-2XM		ISL 350 HP 1000 LB FT TQ	2,030
D7	Eaton	342-443		RO-11908LL 10 Speed Trans	1,917
D7	Allison	342-582		3000 RDS Auto Transmission	6,146
D7	Allison	342-584		3500 RDS Auto Transmission	6,091
D7	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
D7	Detroit	400-1A8	AF-14-3.4	14,700 LB Front Axle	621
D7	Meritor	400-1F2	MX-14-120	14,000 LB Front Drive Axle	14,175
D7	Meritor	400-1F1	MX-16-120	16,000 LB Front Drive Axle	14,260
D7	Freightliner	620-010		14,600 LB Front Suspension	382
D7	Detroit	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,400
D7	Detroit	400-1BA	AF-18.0-5	18,000 LB Front Axle	2,013
D7	Freightliner	620-013		18,000 LB Front Suspension	492
D7	Freightliner	620-004		16,000 LB Flatleaf Front Suspension	504
D7	Detroit	400-1BB	DA-F-20.0-05	20,000 LB Front Axle	3,325
D7	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	1,880
D7	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
D7	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
D7	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
D7	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
D7	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513

FORM E-1: Chassis Manufacturer Options Pricing				Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc				
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(4) All options priced herein must have a unique, CURRENT chassis manufacturer product / part code.					

HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D7	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906
D7	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
D7	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
D7	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
D8	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	NC
D8	Detroit	101-2TX	DD13	380 HP 1350 LB FT TQ	257
D8	Detroit	101-2TJ	DD13	380 HP Multi TQ 1235/1550 LB FT	401
D8	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	329
D8	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	475
D8	Detroit	101-2TF	DD13	435 HP 1550 LB FT TQ	581
D8	Detroit	101-2T0	DD13	450 HP 1550 LB FT TQ	643
D8	Detroit	101-2TI	DD13	450 HP 1650 LB FT TQ	845
D8	Detroit	101-2TI	DD13	470 HP 1650 LB FT TQ	1,110
D8	Cummins	101-2J8	ISL-G	300 HP 860 LB FT TQ CNG Engine	14,577
D8	Cummins	101-2J8	ISL-G	320 HP 1000 LB FT TQ CNG Engine	15,030
D8	Cummins	101-2NO	ISL	345 HP 1150 LB FT TQ	(4,494)
D8	Cummins	101-2NX	ISL	380 HP 1300 LB FT TQ	(5,777)
D8	Cummins	101-2U5	ISL	370 HP 1250 LB FT TQ	(3,591)
D8	Eaton	342-412		FR-14210B 10 Speed Transmission	694
D8	Eaton	342-416		FR-15210B 10 Speed Transmission	1,057
D8	Eaton	342-419		FR-16210C 10 Speed Transmission	1,129
D8	Eaton	342-443		RTO-11908LL 10 Speed Trans	1,280
D8	Eaton	342-444		RTO-14908LL 10 Speed Trans	2,345
D8	Eaton	342-445		RTO-16908LL 10 Speed Trans	2,950
D8	Eaton	342-1BM		RTLO-16913A 13 Speed Trans	3,438
D8	Allison	342-582		3000 RDS Automatic Trans	6,649
D8	Allison	342-584		3500 RDS Automatic Trans	5,760
D8	Allison	342-1M1		4000 RDS Automatic Trans	16,133
D8	Allison	342-1M3		4500 RDS Automatic Trans	16,763
D8	Detroit	400-1EA	DA-F-13.0-3	13,000 LB Front Axle	197
D8	Detroit	400-1A8	AF-14-3.4	14,700 LB Front Axle	621
D8	Freightliner	620-010		14,600 LB Front Suspension	382
D8	Detroit	400-1A9	AF-16.0-5	16,000 LB Front Axle	1,400
D8	Detroit	400-1BA	AF-18.0-5	18,000 LB Front Axle	2,013
D8	Freightliner	620-013		18,000 LB Front Suspension	492
D8	Freightliner	620-004		16,000 LB Flatleaf Front Suspension	504
D8	Detroit	400-1BB	DA-F-20.0-05	20,000 LB Front Axle	3,325
D8	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	1,880
D8	Freightliner	622-005		Airliner 40,000 LB Rear Suspension	1,144
D8	Freightliner	622-199		Airliner 46,000 LB Rear Suspension	1,679
D8	Freightliner	622-286		Tuftrac 46,000 LB Rear Suspension	2,728
D8	Freightliner	622-1E3		Tuftrac 40,000 LB Rear Suspension	2,761
D8	Hendrickson	622-1E8		Haulmaxx 40,000 LB Rear Suspension	3,513

FORM E-1: Chassis Manufacturer Options Pricing				Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc				
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HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D8	Hendrickson	622-1E7		Haulmaxx 46,000 LB Rear Suspension	3,906
D8	Hendrickson	622-1CH	RT403	Hendrickson RT403 Rear Suspension	2,422
D8	Hendrickson	622-1CP	RT463	Hendrickson RT463 Rear Suspension	2,651
D8	Freightliner	452-005		Driver Controlled Traction-Both Axles	905
D8	Freightliner	230-064		60 Diesel Equivalent Gallon CNG Tank	30,008
D8	Freightliner	230-063		75 Diesel Equivalent Gallon CNG Tank	33,465
D8	Hendrickson	035-1A1	SC120	20,000 LB Composilite Steerable Pusher Axle	8,170
D8	Hendrickson	035-024	HLM 20	13,200 LB Non Steerable Pusher Axle	5,953
D8	Hendrickson	035-1A0	SC13	13,200 LB Composilite Steerable Pusher Axle	5,991
					0
D9	Detroit	101-2TW	DD13	350 HP 1350 LB FT TQ	(569)
D9	Detroit	101-2TC	DD13	370 HP 1250 LB FT TQ	(578)
D9	Detroit	101-2TX	DD13	380 HP 1350 LB FT TQ	(342)
D9	Detroit	101-2TD	DD13	380 HP 1450 LB FT TQ	(278)
D9	Detroit	101-2TJ	DD13	380 HP Multi TQ 1350/1550	(214)
D9	Detroit	101-2TY	DD13	410 HP 1450 LB FT TQ	(214)
D9	Detroit	101-2TE	DD13	410 HP 1550 LB FT TQ	(151)
D9	Detroit	101-2TG	DD13	410 HP 1650 LB FT TQ	(87)
D9	Detroit	101-2TK	DD13	410 HP Multi TQ 1450/1650	(87)
D9	Detroit	101-2TF	DD13	435 HP 1550 LB FT TQ	(55)
D9	Detroit	101-2T1	DD13	450 HP 1650 LB FT TQ	178
D9	Cummins	101-2UA	ISX12	330 HP 1350 LB FT TQ	(3,948)
D9	Cummins	101-2UD	ISX12	350 HP 1350/1450 LB FT TQ	(3,740)
D9	Cummins	101-2N9	ISX12	370 HP 1450 LB FT TQ	(3,645)
D9	Cummins	101-2UE	ISX12	400 HP 1650 LB FT TQ	(3,453)
D9	Cummins	101-2UG	ISX12	425 HP 1650 LB FT TQ	(3,422)
D9	Alliance	292-1E4	8A31	(4) Glass Mat Batteries	468
D9	Eaton	180-094		15 1/2" Ceramic Solo VCTPlus Adjustment Free Clutch	261
D9	Freightliner	293-058		Positive Load Battery Disconnect In Cab	157
D9	Freightliner	23Z-002		Non Polished DEF Tank Cover	162
D9	Freightliner	23U-003		23 Gal DEF Tank	101
D9	Horton	273-018		Drivemaster on/off Fan Drive	40
D9	Philips Temro	138-041		1500 Watt/115 Volt Block Heater	115
D9	Eaton	342-1V2		FM-15E310B LAS 10 Speed ULTRASHIFT Transmission	6,444
D9	Eaton	342-1V4		FM-14E310C LAS 10 Speed ULTRASHIFT Transmission	5,750
D9	Eaton	342-1U5		FM-16E310C LAS 10 Speed ULTRASHIFT Transmission	6,950
D9	Allison	342-1MY		4000 HS Auto Trans	15,578

FORM E-1: Chassis Manufacturer Options Pricing		Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc		

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HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D9	Allison	342-1M1		4000 RDS Auto Trans	15,732
D9	Allison	342-1M3		4500 RDS Auto Trans	16,678
D9	Detroit	400-1A8	AF-14.7-3	14700 LB Front Axle	549
D9	Meritor	400-099	MFS-14-143A	14700 LB Front Axle	688
D9	Freightliner	620-021		14000 LB Front Suspension	335
D9	Meritor	420-1K3	MT40-14X	40,000 LB Rear Axle	266
D9	Meritor	420-1N8	RT-40-145A	40,000 LB Rear Axle with Aluminum Carrier	853
D9	Meritor	420-1N6	RT-40-145P	40,000 LB Rear Axle with Pump	930
D9	Detroit	420-1GT	ART-44.0-4	44,000 LB Rear Axle	770
D9	Meritor	420-103	RT-46-160	46,000 LB Rear Axle	2,944
D9	Meritor	420-111	RT-46-160P	46,000 LB Rear Axle with Pump	3,196
D9	Meritor	420-051	RS-23-160	23,000 LB Single rear Axle	(5,476)
D9	Meritor	386-044	RPL25	HD Main Driveline	227
D9	Freightliner	452-006		Driver Controlled Traction Differential- Both Axles	871
D9	Meritor	423-085		16.5x8.62 Rear Brakes	145
D9	Freightliner	425-002		Rear Brake Dust Shields	76
D9	Freightliner	622-218		40,000 LB HD Air Suspension	252
D9	Freightliner	622-108		46,000 LB Air Suspension	604
D9	Freightliner	622-216		23,000 LB Air Suspension	0
D9	WABCO	490-101		4S/4M ABS with Traction Control	178
D9	WABCO	490-035		6S/6M ABS with Traction Control	665
D9	Bendix	480-009		AD-9 Air Dryer	37
D9	Bendix	480-047		AD-IS Air Dryer	135
D9	Freightliner	460-007		Aluminum Air Tanks	356
D9	Freightliner	914-002		Trailer Connections at EOF	158
D9	Freightliner	546-093		11/32x3-1/2x10-3/16" Frame 80KSI	180
D9	Freightliner	546-100		11/32x3-1/2x10-3/16" Frame 120KSI	198
D9	Freightliner	546-101		11/32x3-1/2x10-5/16" Frame 120KSI	457
D9	Freightliner	546-102		7/16x3-9/19x11-1/8" Frame 120KSI	934
D9	Freightliner	547-001		1/4" Inner Frame Reinforcement	850
D9	Freightliner	674-002		LH/RH BOC Access	85
D9	Freightliner	592-055		28" Deck Plate	84
D9	Freightliner	592-057		42" Deck Plate	112
D9	Betts	585-1AJ	B-7	Stainless Steel Mudflap Brackets	64
D9	Freightliner	583-057		Stainless Steel Quarter Fenders	187
D9	Freightliner	583-058		Plastic Quarter Fenders	95
D9	Protech	602-076		28" Locking Toolbox	879
D9	Holland	578-363		Stationary Fifth Wheel	748
D9	Holland	578-1JT		Air Slide Fifth Wheel	1,278
D9	Freightliner	206-158		120 Gallon Fuel Tank RH Side	205
D9	Freightliner	206-162		150 Gallon Fuel Tank RH Side	252
D9	Freightliner	204-158		120 Gallon Fuel Tank lH Side	168
D9	Freightliner	204-162		150 Gallon Fuel Tank lH Side	378
D9	Alliance	122-078		Fuel/Water Separator with Indicator Light	95
D9	Alliance	122-079		Fuel/Water Separator with Heated Bowl and Indicator Lamp	186

FORM E-1: Chassis Manufacturer Options Pricing				Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc				
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HGAC LINE ITEM PRODUCT CODE ASSSOCIATED WITH OPTION (e.g. "A1", "B1-B3", etc.)	MANUFACTURER OF OPTION	MODEL	MAMUFACTURER PRICE BOOK OPTION CODE	OPTION DESCRIPTION	OFFERED PRICE
D9	Alliance	122-084		Fuel/Water Separator with Heated Bowl, Primer Pump and Indicator Lamp	226
D9	Davco	122-1F1		482 Fuel/Water Separator	375
D9	Davco	122-1F2		482 Fuel/Water Separator w/Pre Heater	507
D9	Goodyear	093-2AU	LHS	11R24.5 FR Tires	162
D9	Goodyear	094-1U5	661	11R24.5 FR Tires	128
D9	Goodyear	094-0WF	G182	11R24.5 RR Tires	375
D9	Goodyear	094-2AU	G399	11R24.5 RR Tires	650
D9	Michelin	094-0RD	XZY-3	11R24.5 RR Tires	1,802
D9	Accuride	502-1EH	98367	22.5x8.25 Aluminum FR Wheels	352
D9	Accuride	505-1EF	88367	22.5x8.25 Aluminum RR Wheels	1,123
D9	Accuride	502-333	29362	24.5x8.25 Aluminum FR Wheels	338
D9	Accuride	505-333	29362	24.5x8.25 Aluminum RR Wheels	1,353
D9	Freightliner	727-066		Dual 26" Air Horns	98
D9	Freightliner	294-086		LED Stop/Tail/Turn Lights	63
D9	Freightliner	744-1C6		Dual Bright Mirrors with LH/RH Remote	78
D9	Freightliner	764-016		Exterior Sun Visor	165
D9	Freightliner	720-002		2 1/2 lb Fire Extinguisher	45
D9	Freightliner	720-003		5 lb Fire Extinguisher	56
D9	Freightliner	655-005		Electric Door Locks	64
D9	Delphi	746-1AN		AM/FM/WB Sirius Premium Radio	546
D9	Freightliner	746-1AF		AM/FM Radio	227
D9	Freightliner	746-1AG		AM/FM/WB CD/MP3 Premium Radio	374
D10/D11	Freightliner	WHL-452		178" Wheelbase	275
D10/D11	Freightliner	WHL-482		190" Wheelbase	391
D10/D11	Freightliner	WHL-527		208" Wheelbase	460
D10/D11	Freightliner	WHL-552		218" Wheelbase	305
D10/D11	Freightliner	WHL-635		250" Wheelbase	772
D10/D11	Freightliner	WHL-700		276" Wheelbase	969
D10/D11	Cummins	101-2N2	ISB	220 HP 520 LB FT TQ	543
D10/D11	Cummins	101-2GD	ISB	240 HP 560 LB FT TQ	1,119
D10/D11	Cummins	101-2RJ	ISB	260 HP 660 LB FT TQ	3,213
D10/D11	Cummins	101-2N7	ISB	300 HP 660 LB FT TQ	4,925
D10/D11	Leece Neville	124-1DE		200 Amp 12v Alternator	804
D10/D11	Freightliner	171-007		Gates Blue Stripe Coolant Hoses	82
D10/D11	Allison	342-1MC		1000 EVS Auto Trans	1,225
D10/D11	Allison	342-1MB		1000 RDS Auto Trans	687
D10/D11	Allison	342-1MF		2200 HS Auto Trans	1,503
D10/D11	Allison	342-1MK		2100 RDS Auto Trans	1,244
D10/D11	Allison	342-1MN		2500 RDS Auto Trans	1,610
D10/D11	Allison	342-1MR		2200 EVS Auto Trans W Park Pawl	2,106
D10/D11	Allison	342-1MT		2500 EVS Auto Trans	1,661
D10/D11	Freightliner	620-049		6,000 LB Front Suspension	257

FORM E-1: Chassis Manufacturer Options Pricing				Invitation #:	HT06-16
Offeror Name:	Houston Freightiner Inc				
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D10/D11	Freightliner	620-050		7,000 LB Front Suspension	319
D10/D11	Freightliner	620-054		7,500 LB Front Suspension	350
D10/D11	Freightliner	620-1A3		8000 LB Front Suspension	203
D10/D11	Freightliner	620-054		7,500 LB Front Suspension	350
D10/D11	Freightliner	620-019		9,000 LB Front Suspension	207
D10/D11	Freightliner	620-062		10,000 LB Front Suspension	211
D10/D11	Freightliner	420-1C4	DA-RS-17.5	17,500 LB Rear Axle	567
D10/D11	Freightliner	420-1GJ	DA-RS-19	19,000 LB Rear Axle	724
D10/D11	Meritor	420-1M4	MS-17-14X	17,500 LB Rear Axle	1,420
D10/D11	Freightliner	622-1BE		10,000 LB Rear Suspension	429
D10/D11	Freightliner	622-1K7		11,000 LB Rear Suspension	382
D10/D11	Freightliner	622-032		12,000 LB Rear Suspension	382
D10/D11	Freightliner	622-1GX		13,000 LB Rear Suspension	447
D10/D11	Freightliner	622-004		17,500 LB Rear Suspension	566
D10/D11	Freightliner	622-004		20,000 LB Rear Suspension	678
D10/D11	Freightliner	622-282		18,000 LB Air Rear Suspension	1,494
D10/D11	Freightliner	622-057		20,000 LB Air Rear Suspension	1,652
D10/D11	Freightliner	547-001		1/4" Inner Frame Liner	2,304
D10/D11	Freightliner	556-022		11" Sweptback Steel Bumper	272
D10/D11	Freightliner	018-022		Air Brakes	1,981
D10/D11	Freightliner	558-001		Front Tow Hooks	148
D10/D11	Freightliner	230-045		40 Gallon Fuel Tank RH	365
D10/D11	Freightliner	230-001		60 Gallon Fuel Tank RH	415
D10/D11	Alliance	122-081		Fuel Water Separator	174
D10/D11	Davco	122-1D7	382	Fuel Water Separator	300
D10/D11	Goodyear	093-0KD	G647	245/70R19.5 14 Ply FR Tires	274
D10/D11	Goodyear	094-0KD	G647	245/70R19.5 14 Ply RR Tires	488
D10/D11	Alcoa	502-1H2		19.5x6.76 Aluminum Front Wheels	464
D10/D11	Alcoa	505-1H2		19.5x6.76 Aluminum Rear Wheels	980
D10/D11	Sanden	130-003		Air Conditioner Compressor	258
D10/D11	Freightliner	532-007		Tilt Steering Column	159

Quotation: QUO-05422-N7T5

Date: 6/16/2016

PO Number: _____

3300 Waco St
Texarkana, TX 75503
o: 903 838 6531
f: 903 831 2719

CUSTOMER	SHIP TO
Doggett of South Texas	PRIMARY
Attn: Mark Brunnemann	705 E. NOLANA
705 E. NOLANA	PHARR, TX 78577
PHARR, TX 78577	
(956) 782-8202 Ext. 28202	

REQUISITIONER	SHIP VIA	F.O.B.	Estimated Lead Time
Mica Morse		FOB Texarkana, TX	

Item Description	Qty
2000 Gallon WT 2016 Ledwell 2000 Gallon Tank; 120"L x 96"W x 56"T	1

Standard Equipment

Baffle	One (1) Longitudinal and one (1) Transverse baffle
Standard Water Specs	Rear ladder
Standard Water Specs	Push bumper
Standard Water Specs	All-welded subframe, Rubber mount padding
Standard Water Specs	Hydrant-fill capability, Top discharge hydrant-fill water drop
Standard Water Specs	Low point drain cocks
Standard Water Specs	Steel fenders with railing
Standard Water Specs	Suction plumbed interior primer tank
Standard Water Specs	Reservoir interior blasted and coated with POLIBRID 705
Standard Water Specs	Tool Box
Spray Valves	In-cab manual control valves allows selection of front, rear, or side spray function
Hosereel	Rear mounted hose reel with 50' - 1 1/4" Jet spray hose w/ 1 1/2" nozzle
Pump	4" X 3" pump - PTO driven, Suction and Front/Rear Plumbing
Spray Function	Two (2) front spray heads/Two (2) rear spray heads, One (1) side spray nozzle with 1 1/2" hose outlet
Spray Heads	Standard spray heads
Site Tube	Water level site tube front mount
DOT Compliance	Back-up alarm
DOT Compliance	Mud flaps
DOT Compliance	Fire extinguisher

Standard Equipment	
DOT Compliance	Triangle & reflector kit
DOT Compliance	Reflexite conspicuity tape
Decals	Customer-approved decals
Paint	Painted One Color

Quote Totals	
Detail Amount	17,777.00
DOT	0.00
F.E.T.	0.00
Pre-Freight Amount	17,777.00
Freight Amount	975.00
Quote Total	18,752.00

Other Comments or Special Instructions	SALESPERSON
	Mica Morse

Authorized By

Date

Please contact your salesman with any questions. Thank you for your business.
Applicable State / Local Taxes Not Included

HGACBuy
THE SMART PURCHASING SOLUTION

Helping Governments Across the Country Buy
PO Box 22777 • 3555 Timmons Ln. • Houston, Texas 77227-2777• 1-800-926-0234

CONTRACT PRICING VERIFICATION

TO:	FROM:
Rudy Salinas	**Loleta Chappel**
COMPANY:	DATE:
Hidalgo County	**8/18/2016**
PHONE NUMBER:	
956-318-2626 Ext. 4875	
RE:	REFERENCE:
Price Verification for HT06-16 Medium & Heavy Trucks & Truck Bodies	Contract Pricing Worksheet dated: 07/15/2016

I have reviewed the pricing worksheet provided through HGACBuy HT06-16 Medium & Heavy Trucks & Truck Bodies. Our review verifies the pricing worksheet provided is in compliance with the contract. When you are ready please make your Purchase Order out to the vendor and send a copy of the Purchase Order and all the HGACBuy Product Pricing Worksheet information to me by email loleta.chappel@h-gac.com or fax 713-993-4548 and also please send a copy of the Purchase Order to the vendor.

Please advise if we can assist further in this matter.

**********This is not an HGACBUY Order Confirmation**********

Thank You

Loleta Chappel
Procurement Services Specialist
Cooperative Purchasing
Direct: 713-993-2486
Fax: 713-993-4548
loleta.chappel@h-gac.com
www.HGACBUY.org

HGACBuy Cooperative Purchasing Program
Administrative Fee Schedule
(Effective 4/1/2014)

HGACBuy
THE SMART PURCHASING SOLUTION

Product or Service Category	Fee Assessment
VEHICLES:	
Cars, Light Trucks, Utility Vehicles, Vans, Brush Fire/Wildland Units, etc; and Light Duty Trucks w/Bodies supplied by the Cab/Chassis Dealer (i.e. all on a single PO)	$ 600 flat per PO
Medium & Heavy Duty Trucks, Cab/Chassis only w/o Bodies (i.e. exposed frame rails); Ambulance Remounts	$ 600 flat per PO
Buses, School & Transit (All Types)	$ 600 flat per PO
Medium & Heavy Duty Trucks w/Bodies supplied by the Cab/Chassis Dealer (i.e. all on a single PO).	$ 1,000 flat per PO
Medium & Heavy Duty Trucks w/Bodies supplied from a ***different*** contract (i.e. Refuse Collection or Sewer Cleaning contracts; all on a single PO).	$1,500 per PO
Ambulances, Complete (All Types)	$ 1,000 flat per PO
Fire Apparatus (All Types Except Brush/Wildland)	$ 2,000 flat per PO
Truck Bodies and Conversions on separate PO from Cab/Chassis (i.e. Sewer Cleaners, Box Vans, Brush Fire/Wildland Units, Refuse Collection Bodies etc.).	1.5% of total PO amount
Trailers (All Types)	1.5% of total PO amount
[redacted]	
Wireless Communications Services	1.0% of total PO amount
ALL OTHER PRODUCTS & SERVICES:	1.5% of total PO amount
Published Options purchased directly from a contract (separate and apart from the associated base line item)	1.5% of total PO amount

Zimbra **rudy.salinas1@co.hidalgo.tx.us**

RE: Purchasing Program Administrative Fee Schedule

From : Loleta Chappel <Loleta.Chappel@h-gac.com> Wed, Sep 07, 2016 02:16 PM
Subject : RE: Purchasing Program Administrative Fee Schedule 1 attachment
To : Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>

Hi Rudy

Yes, this is the correct fee schedule the only correction is the Wireless Communications Services is 1.5% of Total PO amount.

Thank You

Loleta Chappel
Procurement Service Specialist
Direct 713-993-2486
Fax 713-993-4548
www.hgacbuy.org
HGACBuy THE SMART PURCHASING SOLUTION

From: Rudy Salinas [mailto:rudy.salinas1@co.hidalgo.tx.us]
Sent: Wednesday, September 07, 2016 10:45 AM
To: Chappel, Loleta <Loleta.Chappel@h-gac.com>
Subject: Purchasing Program Administrative Fee Schedule

Loleta, Good Morning!

Can you provide me an updated Fee Schedule (see attached) and confirm that these fees are allowed to be charged by the vendor.

Thank You,

Rudy Salinas, Procurement Manager
Hidalgo County Purchasing Department
2808 South Business Highway 281
Edinburg, Texas 78539
Phone: 956-318-2626 Ext: 4875
Email: rudy.salinas1@co.hidalgo.tx.us

Ledwell 2000 Gallon Water Tanker

2000 gallon water tank assembly complete with manway
One cross-wise baffle, One longitudinal baffle
Rear ladder-push bumper-tool box
All welded sub frame
Rubber mounting
Hydrant fill capability
Top discharge hydrant fill water drop
Hose reel with 50' - 1 1/4" jet spray hose with nozzle
4"x3" pump - PTO driven
Two [2] front spray heads/Two [2] rear spray heads
Side spray nozzle with 1 1/2" hose outlet
Low point drain cocks
In-cab manual control valves
Steel fenders
Suction plumbed reservoir
Reservoir interior coated with *POLIBRID*
Back-up alarm
Mud flaps
Fire extinguisher and triangle reflector kit
Painted one color

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-108770

Date Filed:
09/07/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Houston Freightliner, Inc
Houston, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Hidalgo County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
303367
2017 Freightliner water Truck and other HD Equip Sales and Service

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

DIANA SALAZAR
Notary Public, State of Texas
My Commission Expires
October 19, 2019

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Mike McCarthy, this the 7th day of September, 2016, to certify which, witness my hand and seal of office.

D Salazar — Signature of officer administering oath
Diana Salazar — Printed name of officer administering oath
Notary — Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
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Houston Freightliner, Inc
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303367
2017 Freightliner water Truck and other HD Equip Sales and Service

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

SAM Search Results
List of records matching your search for :
Functional Area: Entity Management
Record Status: Active
DUNS Number: 008117012

ENTITY	Doggett Heavy Machinery Services, LLC	Status:Active
DUNS: 008117012	+4:	CAGE Code: 1G5F2 DoDAAC:
Expiration Date: Mar 7, 2017	Has Active Exclusion?: No	Delinquent Federal Debt?: No
Address: 900 E Expressway 83 City: San Juan ZIP Code: 78589-4500	State/Province: TEXAS Country: UNITED STATES	

AI-55555 **Purchasing Department** **12. C. 4.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Sandy Suarez, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

Presentation of low bid received meeting all specifications and/or requirements for the purposes of award of Bid/Contract for: "Pit Run Caliche" - Hidalgo County Pct 4, in connection to project no.: 2016-230-07-06-SGS.

BACKGROUND

1. Eleven packets sent out
2. Current contract will expire on: November 17, 2016
3. New contract commences on: November 18, 2016
4. Contract Document reviewed & approved by Legal as to form.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1200-431-00-124-007-0-610

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Pct 4 - $ 25,036.86 as of 9/9/16

Attachments

Recommendation
Tabulation Sheet
Participation
Form 1295
contract
email- legal

Form Review

Inbox	Reviewed By	Date
Purchasing Department	Letty Saenz	09/08/2016 11:08 AM
Budget & Management	Veronica Ortiz	09/08/2016 11:09 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Sandy Suarez Started On: 07/22/2016 02:29 PM
Final Approval Date: 09/09/2016

Hidalgo County Purchasing Department
2812 S. Business Highway 281
New Administration Building
Edinburg, Texas 78539
(956) 318-2626/ Fax: (956) 318-2629

MEMORANDUM

TO: Commissioner Joseph Palacios,
Hidalgo County Precinct No. 4

vía email: maria.lucio@co.hidalgo.tx.us
vía email: roman.rodriguez@co.hidalgo.tx.us

ATTN: Lulu Lucio / Roman Rodriguez

FROM: Sandy Suarez, Buyer II
Hidalgo County Purchasing Department

DATE: July 8, 2016

RE: **Memorandum of Recommendation regarding:**
RFB NO.: -2016-230-07-06-SGS-HIDALGO COUNTY PRECINCT NO. 4- "PIT RUN CALICHE"

We have received **Two (2) responses** to the above reference project. Enclosed you will find a copy of the tabulation sheet along with Exhibit "B"- Bid page for your review and Recommendation.

We would like to present your Recommendation to Commissioner's Count; therefore, we need your response by no later **than July 15, 2016 @ 3:00 p.m.** to be able to present it to Commissioner's Court

Please indicate your Recommendation and/or if there are concerns, please indicate on the space provided below. Reply to the Purchasing Department **via fax to (956)-318-2629 or sandy.suarez@co.hidalgo.tx.us.**

Should you have any questions or require further information please do not hesitate to call me at 318-2626- ext. 4860. Thank you for your attention and cooperation to this matter.

AWARD TO VENDOR(s):	RECOMMENDATION (Basis) (i.e., lowest bidder, met specification/requirements etc)
1. Roy's Hauling Services	Lowest Bidder
2.	
3.	

Please include the budget account number(s) for the above reference project.

Budget Acct No.: 6-1200-431-00-124-007-(e10

R Rodriguez	ROMAN Rodriguez	Road & Bridge	
AUTHORIZED SIGNATURE	**PRINTED NAME**	**DEPARTMENT**	**DATE**

HIDALGO COUNTY PURCHASING DEPARTMENT
BID TABULATION SHEET

DEPARTMENT NAME: HIDALGO COUNTY PRECINCT NO. 4

BID OPENING DATE: 07/06/16	**BID OPENING TIME: 9:30 A.M.**

DESCRIPTION OF BID: "PIT RUN CALICHE BASE "

BID NO: 2016-230-07-06-SGS	**BUYER: SANDY SUAREZ**

	Company	**Pit Location**		**Unit /Total Price Per Ton**
1	Frontera	490 PIT	4.5 mi W. of US 281 on 490 (FOB Pit)	**4.00**
2	Roy's Hauling Service	RHS – BIG FIVE PIT	4 mi N of FM 1925, off Big Five Rd. Edinburg, TX.	**2.40**
		RHS- LINN/SAN MANUEL PIT	1/2 mi W. of FM 3250, off Shelly Lorie Rd. Linn/San Manuel	**2.40**

HIDALGO COUNTY PURCHASING DEPARTMENT
PARTICIPATING BIDDER'S LOG
SPECIFICATIONS/BID PACKETS
RFB-RFP-RFQ

BID OPENING DATE: JULY 06, 2016 **BID OPENING TIME: 9:30 A.M.**
DEPARTMENT/BID DESCRIPTION: "HIDALGO COUNTY PRECINCT NO. 4–PIT RUN CALICHE"
BID NO: 2016-230-07-13-SGS

NAME OF BIDDER: COMPANY/FIRM	BID REQUEST *VIA	SIGNATURE (IF APPLICABLE) OR INITIALS OF STAFF ADDRESSING MAILOUT	DATE	ADDRESS E-MAIL & PHONE NO
1. **Roy's Hauling Services, Inc.** Attn: Roy Balderas Jr. or Christina	E-mail	Sandy Suarez	06/20/16	P.O. Box 1896 Edinburg, TX. 78540 P# 956-383-2206 F# 956-383-2569 royshaulinginc@aol.com
2. **Frontera Materials** Attn: Barry Ehlinger	E-mail	Sandy Suarez	06/20/16	P.O. Box 1917 Weslaco, TX, 78596 P# 956-316-8952 C# 607-5965 barry@fmitex.com
3. **Valley Caliche Products** Attn: Mark Motheral	E-mail	Sandy Suarez	06/20/16	P.O. Box 1086 Mission, TX 78573 P# 956-581-2751 F#956-585-6844 valleycaliche@aol.com
4 **Upper Valley Materials** Attn: Steve Boyd	E-mail	Sandy Suarez	06/20/16	7301 W. Exp 83 Mission, TX 78572 P# 956-580-2502 F# 956- 585-8675 sboyd@capatexas.com
5. **Prime-Vendor, Inc** Attn: Erika Russ	E-mail	Sandy Suarez	06/20/16	4622 Cedar Avenue, Suite 123 Wilmington, N.C. 28403-4429 P#: 800 746-9554 F#: 800 746-8307 bids17@prime-vendor.com
6. **Virtual Builders Exchange** Attn: Lorri Chambers	E-mail	Sandy Suarez	06/20/16	4047 Naco Perrin, Ste. 100 San Antonio, TX. 78217 P#210-564-6900 F#210-564-6930 lorri@virtualbx.com
7. **IOC Company, LLC** Attn: Sebasin Salinas	E-mail	Sandy Suarez	06/20/16	9312 E. Curve Rd. Edinburg, TX. 78542 P# 956-380-2897 F#956-380-4085 C# 956-227-1494 ssalinas@ioccompany.com
8. **RAM RGV, INC** Attn: Raul Garcia	E-mail	Sandy Suarez	06/20/16	515 Pableto Road Sullivan City, TX. 956-222-5013 Raugar10@ymail.com
9. International Materials LLC Attn: Javier Garza	Email-	Sandy Suarez	06/20/16	3408 N. Conway Mission, Texas 78574 956-240-1423 & 956-862-3701 fax 956-584-3206 internationalmats@at&t.net
10. Prime Vendor Inc. Bid clerk	Email-	Sandy Suarez	06/24/16	4622 Cedar Avenue Wilmington, NC. 28403 (p) 800-746-9554 (f) 800-746-8307 Bids19@prime-vendor.com

11. Cen Tex Trucking Juan Chavez	I/P	Sandy Syarez	06/29/16	24710 Staffordshire San Antonio, TX 78257 C-956-363-8111 F-210-648-3699 centextrucking@gmail.com

***VIA:**

IN PERSON (IP)

E-MAIL (EM)

TELEPHONE REQUEST (TR)

BIDDER LIST MAIL OUT (BLM)

FACSIMILE (FAX)

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-92113

Date Filed:
07/28/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
ROY'S HAULING SERVICE
EDINBURG, TX *United States*

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
COUNTY OF HIDALGO

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
2016-230 - PCT4 PITRUN CALICHE
PITRUN CALICHE

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

RAQUEL DELGADO
My Commission Expires
February 25, 2017

AFFIX NOTARY'S STAMP / SEAL ABOVE

Signature of authorized agent of contracting business entity

Sworn to and subscribed before me, by the said Kristina Balderas, this the 28th day of July, 20 16, to certify which, witness my hand and seal of office.

Signature of officer administering oath — Printed name of officer administering oath — Title of officer administering oath

Forms provided by Texas Ethics Commission — www.ethics.state.tx.us — Version V1.0.277

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-92113

Date Filed:
07/28/2016

Date Acknowledged:
07/29/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

ROY'S HAULING SERVICE
EDINBURG, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

COUNTY OF HIDALGO

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

2016-230 - PCT4-PITRUN CALICHE
PITRUN CALICHE

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

REQUIREMENTS AGREEMENT
C-16-230-09-13

THIS AGREEMENT (the "Agreement") is entered into effective as of the **13th** day of **September, 2016** by and between **Roy's Hauling Service, Inc.** ("Seller") and Hidalgo County, Texas ("Buyer").

WHEREAS, Buyer has solicited sealed bids for the supply of its requirements of **Hidalgo County** for the **"Pit Run Caliche Base" (on an as needed basis),** (the "Product") for **Hidalgo County Precinct No. 4**, as further described in Exhibit "A", Request for Bids (RFB) Procurement Packet as attached hereto and incorporated herein by reference for all purposes (the "RFB") for a period of **one (1) year** and;

WHEREAS, Seller has submitted a proposal to supply Buyer's requirements a copy of which is attached hereto as Exhibit B and is incorporated herein for all purposes; and

WHEREAS, Buyer has determine that Seller has submitted the lowest and best bid to meet Buyer's requirements for certain of the Products, as herein after described.

NOW THEREFORE, for and in consideration of the mutual covenants and conditions hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Buyer agrees to purchase from Seller, and Seller agrees to sell and deliver to Buyer, all of the Products listed on Exhibit "B", which is attached hereto and incorporated herein by reference, that Buyer may require for use by Buyer in Hidalgo County projects for a period of a **one (1) year** with the County's option to extend/renew for an additional one (1) year period under the same rates, terms and conditions. Hidalgo County reserves the right to continue this bid for an additional sixty (60) day grace period, under the same rates, terms and conditions at the end of the contract term for unforeseen delays in award of new bid for the next contract term. This Contract shall commence on **November 18, 2016** and expire on **November 17, 2017** and it is agreed that the Products will meet the Specifications in the Request for Bids (RFB) Procurement Packet set forth in Exhibit "A" hereto.

2. When Buyer determines that it needs a quantity of the Products to be delivered, it will, according to its Purchasing Policies, complete and submit to Seller a Purchase Order describing the type and quantity of the Products required. The Products are to be delivered by Buyer to the location in Hidalgo County specified by Buyer in its Purchase Order.

3. Buyer agrees to pay Seller for each Purchase Order based on the prices set

out in Exhibit "B". Seller shall render invoices for each Purchase Order, and the invoices shall be paid by Buyer on or before the 30th day following receipt of the invoice.

4. **General Provisions.**

a. **Conflict with Applicable Law.** Nothing in this Agreement shall be construed so as to require the commission of any act contrary to law, and whenever there is any conflict between any provision of this Agreement and any present or future law, ordinance or administrative, executive or judicial regulation, order or decree, or amendment thereof, contrary to which the parties have no legal right to contract, the latter shall prevail, but in such event the affected provision or provisions of this Agreement shall be modified only to the extent necessary to bring them within the legal requirements and only during the time such conflict exists.

b. **No Waiver.** No waiver by Buyer of any breach of any provision of this Agreement shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision hereof.

c. **Entire Agreement.** This Agreement contains the entire contract between the parties hereto, and each party acknowledges that neither has made (either directly or through any agent or representative) any representations or agreements in connection with this Agreement not specifically set forth herein. This Agreement may be modified or amended only by agreement in writing executed by Buyer and Seller, and not otherwise.

d. **Texas Law to Apply.** This Agreement shall be construed under and in accordance with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Hidalgo County, Texas. The parties hereby consent to personal jurisdiction in Hidalgo County, Texas.

e. **Notice.** Except as may be otherwise specifically provided in this Agreement, all notices, demands, requests or communications required or permitted hereunder shall be in writing and shall either be (i) personally delivered against a written receipt, or (ii) sent by registered or certified mail, return receipt requested, postage prepaid and addressed to the parties at the addresses set forth below, or at such other addresses as may have been theretofore specified by written notice delivered in accordance herewith:

If to Buyer: Hidalgo County
Attention: County Judge
100 East Cano, 2nd Floor
Edinburg, Texas 78539

If to Seller: Roy's Hauling Service
Attention: Kristina Balderas, Corporate Manager
P.O. Box 1896
Edinburg, Texas 78540

Each notice, demand, request or communication which shall be delivered or mailed in the manner described above shall be deemed sufficiently given for all purposes at such time as it is personally delivered to the addressee or, if mailed, at such time as it is deposited in the Unites States mail.

f. **Termination.** County may terminate this Agreement at any time for any reason or no reason at all upon giving thirty (30) days written notice.

g. **Additional Documents.** The parties hereto covenant and agree that they will execute such other and further instruments and documents as are or may become necessary or convenient to effectuate and carry out the terms of this Agreement.

h. **Successors.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, legal representatives, successors, and assigns where permitted by this Agreement.

i. **Assignment.** This Agreement shall not be assignable.

j. **Headings.** The headings and captions contained in this Agreement are solely for convenient reference and shall not be deemed to affect the meaning or interpretation of any provision or paragraph hereof.

k. **Gender and Number.** All pronouns used in this Agreement shall include the other gender, whether used in the masculine, feminine or neuter gender, and the singular shall include the plural whenever and as often as may be appropriate

l. **Authority to Execute.** The execution and performance of this Agreement by Buyer and Seller have been duly authorized by all necessary laws, resolutions or corporate action, and this Agreement constitutes the valid and enforceable obligations of Buyer and Seller in accordance with its terms.

m. **Insurance.** Company shall provide, to the extend it deems necessary, insurance in force on all persons connected with providing services under this Contract naming County as an additional insured, and shall furnish to County certificates of such insurance coverage Exhibit "C", which is attached hereto.

n. **Commitment of Current Revenues Only**. In the event that, during any term hereof, the Commissioners Court does not appropriate sufficient funds to meet the obligations of Buyer under this Agreement, Buyer may terminate this Agreement upon ninety (90) days written notice to Seller. Buyer agrees, however, to use reasonable efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of Buyer pursuant to the provisions of Tex. Loc. Govt. Code Ann. ' 271.903 (Vernon Supp. 1996).

o. **Immunities.** Nothing in this Agreement is intended to and County does not hereby waive, release or relinquish any right to assert any of the defenses County enjoys by virtue of the state or federal constitution, laws, rules or regulations, and any sovereign, official or qualified immunity available to County as to any claim or action of any person, entity, or individual against County.

p. **Purchasing Ethics**. Seller represents and warrants it has not, during the process of being awarded this contract violated the following ethical standards of Buyer and, upon and after the execution of this Agreement, agrees to abide by the following ethical standards of Buyer:

(1) It shall be a breach of ethics to offer, give or agree to give any elected official, department head or employee, or former elected official, department head or employee, of Hidalgo County, or for any elected official, department head or employee or former elected official, department head or employee of Hidalgo County, to solicit, demand, accept or agree to accept from another person, entity or organization, a gratuity or an officer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or purchase request, influencing the content of any specification or procurement standard, rendering of advise, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefore pending before any department or agency of Hidalgo County.

(2) It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for Hidalgo County, or any person associated therewith, as an inducement for the award of a subcontract or order.

EXECUTED effective as of the day and year first above written.

Approved By Commissioners Court: _____, 2016.

APPROVED AS TO FORM:
Atlas, Hall & Rodriguez, LLP

By: _____
Stephen L. Crain, Attorney

COUNTY OF HIDALGO

By:_____
Ramon Garcia, County Judge

ATTEST:

_____
Arturo Guajardo Jr., County Clerk

COMPANY:
ROY'S HUALING SERVICE, INC.

By:_____
Printed Name: Kristina Balderas
Title: Corporation Manager

EXHIBIT "A"

REQUEST FOR SEALED BIDS (RFB) PROCUREMENT PACKET

Hidalgo County Purchasing Office
2812 S. Business Highway 281
New Administration Building
Edinburg, Texas 78539
(956) 318-2626/ Fax: (956) 292-7612

June 20, 2016

(Company's name and address)

_____

_____

_____

_____

Re: **HIDALGO COUNTY PRECINCT NO. 4**
Request for Bids -**"PIT RUN CALICHE"**
Bid No: 2016-230-07-06-SGS

Dear Gentleman/Ladies:

Enclosed please find a Request for Bid (RFB) packet for your review and consideration.

We have **updated** our RFB packet. Carefully read and review all instructions, requirements, specifications and/or scope of work included in this packet.
Hidalgo County Purchasing Department welcomes and appreciates your participation in the bid process.

If any further assistance is required, please do not hesitate to call the Purchasing Department 956/318-2626.

Sincerely,

Martha L. Salazar, CPPB
Hidalgo County Purchasing Agent

MLS/sgs

Enclosures

Hidalgo County Purchasing Department
2812 S. Business Highway 281
Edinburg, Texas 78539
(956) 318-2626/ Fax: (956) 318-2629

REQUEST FOR BIDS (RFB)

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HIDALGO COUNTY PRECINCT NO. 4

"PIT RUN CALICHE "

RFB NO: 2016-230-07-06-SGS

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9.	Draft Requirements Agreement	8

The above mentioned items shall be found in the Request for Bid (RFB) packet that is attached herewith. Should you find that any of the items are not attached in its entirety please contact Purchasing by calling (956) 318-2626, advise of missing documentation, and Purchasing will forward information either through facsimile or by U.S. Mail.

Thank you.

Martha L. Salazar, CPPB, Purchasing Agent

June 20, 2016
Date

Bid No: 2016-230-07-06-SGS	Buyer II: Sandy Suarez	Tel. No: (956) 318-2626 ext 4860

REQUEST FOR BIDS

HIDALGO COUNTY PCT 4

"Pit Run Caliche"

BID OPENING DATE:
July 06, 2016

Contact Person:

Martha L. Salazar, CPPB, Purchasing Agent
Hidalgo County Purchasing Department
Physical Address: 2802 S. Business Hwy. 281 -New Administration Building
Mailing/Postal Address: 2812 S. Business Hwy. 281
Edinburg, Texas 78539
956 318-2626

Form HCPD-03

1. Sealed bids will be received for **HIDALGO COUNTY PCT 4 - "PIT RUN CALICHE"** in accordance with the specifications attached as Exhibit "A" hereto. Bids should address all specifications set forth. Bidders may suggest substitutions of features which they feel would be in the best interest of Hidalgo County ("County"). Strong rationale must be presented for any deviation from the specifications. Hidalgo County reserves the right to reject the deviation and its effect on the overall bid.

2. One (1) original and Three (3) copies of all bids are required with the bidders name and return address clearly typed and or/printed on upper left hand corner and the proper notation clearly typed/printed on the lower left hand corner of the envelope and/or package: **"RFB No. 2016-230-07-06-SGS HIDALGO COUNTY-PCT 4 "PIT RUN CALICHE"**and at County's Purchasing Department with a physical address: 2802 S. Business 281 and a mailing address: 2812 S. Business Hwy 281, New Administration Building, Edinburg, Texas, **on or before 9:30 A.M, WEDNESDAY, JULY 06, 2016. NO FACSIMILES OR LATE ARRIVALS WILL BE ACCEPTED. ANY RFB RECEIVED AFTER THAT TIME WILL NOT BE OPENED AND WILL BE RETURNED. OVERNIGHT MAIL MUST ALSO BE PROPERLY LABELED ON THE OUTSIDE OF EXPRESS ENVELOPE OR PACKAGE WITH REFERENCE TO HIDALGO COUNTY PCT 4-"PIT RUN CALICHE".**

   Hidalgo County reserves the right to refuse and reject any/all RFB and to waive any/all formalities or technicalities, or to accept the RFB considered the best and most advantageous to Hidalgo County.

3. Hidalgo County reserves the right to: A. separate and accept, or eliminate any item(s) listed under this bid that it deems necessary to accommodate budgetary and/or operational requirements; B. reject any or all bids submitted and further reserves the right to design the evaluation criteria to be used in selecting the lowest and best bid for approval; and C. award the bid to one bidder or to multiple bidders if the County determines it is in its best interest to do so."

4. The Bidder shall not substitute items named in the bid without the express written consent of Hidalgo County. Failure of the delivered item to perform as specified or failure to meet the stated delivery schedule shall release Hidalgo County from all obligations to the contracting party with regard to the item(s) in question. In such event, County may elect to award the contract to the next-lowest responsible bidder, or to reject all bids and re-advertise.

5. For work to be performed at a County owned or operated location, each bidder shall, in its sole discretion, visit the job site before preparing the bid and thoroughly familiarize himself/herself with existing conditions. Bidder should take field dimensions and note all circumstances which affect the dollar amount of the bid.

6. Descriptive specifications are referenced in this document to indicate the general kind and quality of equipment desired by Hidalgo County. Due to various styles and models of equipment, bidders are required to include illustrations, specifications, explanation of warranties, and service data with their bid including catalogue numbers and any necessary references.

7. No bid may be withdrawn within thirty (30) days from the scheduled time to open bids.

8. Proposed prices are to remain firm for a minimum of ninety (90) days after bid opening.

9. Any interpretations, amendments, corrections or changes to this bid document must be in a written addendum and signed by the County Judge or his designee. Addenda will be mailed to all who are known to have received a copy of the Request for Bids. Bidders shall acknowledge receipt of all addenda as a part of their bid.

10. County reserves the right to accept or reject any or all bids.

11. Costs are to be net F.O.B., County Prepaid.

12. County is exempt from Federal Excise Tax, State Tax and Local Tax. Do Not include tax in cost figure. If it is determined that tax was included in the cost figures it will not be included in the tabulation of any awards. Tax exemption certificates will be furnished upon request.

13. Funds for this procurement have been provided through the County budget for this fiscal year only. County, on an annual basis, has the right to reconsider a contract during the budget process for ensuing years if financial resources of County are insufficient to meet the liabilities of said contract. The award of a bid or contract hereunder will not be construed to create a debt of the County which is payable out of funds beyond the current fiscal year.

14. Upon award and prior to execution of a contract, Sole Proprietorships are required to submit a copy of their social security cards to the Hidalgo County Auditor's Office in order to establish an account with the County. All awarded vendors must submit a completed W-9 and a copy o their Federal ID Number Certificate.

15. DELIVERY INSTRUCTIONS:
    - No deliveries accepted after 3:00 P.M., Monday-Friday.
    - At least seventy two (72) hours prior notice of delivery must be given to Martha L. Salazar, Purchasing Agent before delivery will be accepted.
    - If you need additional information call the office listed below:

      Hidalgo County Purchasing Department
      Martha L. Salazar, Purchasing Agent
      (956) 318-2626

16. BILLING AND PAYMENT INSTRUCTIONS:
    - Invoices must include:
      a) Name and address of successful bidder
      b) Name and address of receiving department or official
      c) Purchase Order Number (if any)
      d) Notation-**HIDALGO COUNTY PCT 4-" PIT RUN CALICHE"** Descriptive information as to the items or services delivered, including product code, item number, quantity, etc.
      e) Contract number must be indicated on all invoices
    - Discount payments will be considered when offered.
    - Contact person for Billing and Payment questions:

      Hidalgo County Precinct 4
      Attn: Accounts Payables
      1051 N. Doolittle Rd.
      Edinburg, Tx 78542
      (956) 383-3112

17. Schedule of Events

Bid Opening, 9:30 A.M.	**JULY 06, 2016**
Award of Contract	_____, 2016
Commence Work or Deliver Products	_____, 2016

18. Bid or Performance Bond and Debarment Certification; Payment under Contract:

. If the contract proposed is for the construction of public works or is for a contract for goods & services exceeding $100,000, all bidders shall furnish a good and sufficient bid bond in the amount of five percent of the total contract price. A bid bond must be executed with a surety company authorized to do business in Texas. All bidders are also required to furnish a certification or acknowledgment stating that the contractor or vendor is free from suspension or debarment pursuant to federal regulation 45CFR Part 76. **Register at System for Award Management (SAM) at: www.sam.gov.**

. Together with the signing of a contract or issuance of a purchase order following the acceptance of a bid, and prior to commencement of the actual work, the bidder shall furnish a performance bond to the County for the full amount of the contract, if that contract exceeds $50,000.

. If the contract is for $50,000 or less, no money will be paid to the contractor until completion and acceptance of the work or the fulfillment of the purchase obligation to the County, and, if applicable, the receipt by County of satisfactory evidence that all subcontractors and material men have been paid.

. If a contract is for the construction, alteration or repair of public buildings or public works, the contractor *shall* provide a payment bond for a contract in excess of Twenty Five Thousand Dollars ($25,000.00), as required by Tex. Govt. Code Ch. 2253.

. For requirements contracts, bond requirements are determined by applying the proposed unit price to the estimated quantities included in the specifications.

19. Ethical Standards:

. It shall be a breach of ethics to offer, give or agree to give any elected official, department head or employee, or former elected official, department head or employee, of the County, or for any elected official, department head or employee or former elected official, department head or employee of the County, to solicit, demand, accept or agree to accept from another person, entity or organization, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefore pending before any department or agency of the County.

. It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for the County, or any person associated therewith, as an inducement for the award of a subcontract or order.

. No public official shall have an interest in a contract awarded hereunder except in accordance with Tex. Loc. Govt. Code Chapter 171.

NOTICE:

ALL COMMUNICATIONS BY A VENDOR TO THE COUNTY, ITS OFFICIALS, AND DEPARTMENT HEADS REGARDING THIS PROCUREMENT SHALL BE DONE THROUGH THE HIDALGO COUNTY PURCHASING DEPARTMENT.

20. Disclosure of Conflict of Interest

. Effective January 1, 2016, Chapter 176 of the Texas Local Government Code requires that any vendor, person, consultant or contractor considering doing business with Hidalgo County ("the County") to disclose in the Conflict of Interest Questionnaire (the "CIQ") attached as Exhibit D, the vendor, person, consultant or contractor's affiliation or business relationship that might cause a conflict of interest with the County. By law, the CIQ must be filed with the Hidalgo County Clerk's Office no later than the seventh business day after the date the person becomes aware of facts that require that statement to be filed. The disclosure requirement applies to a person or business who contracts or seeks to contract with Hidalgo County for the sale or purchase of property, goods or service. Any purchase order or contract resulting from this process shall be considered null and void if the successful bidder fails to comply with Texas Local Government Code Chapter 176. Vendors, consultants, contractors and others who desire to conduct business with Hidalgo County are encouraged to refer to Texas Local Government Code Chapter 176 for the details of this law. An offense under Texas Local Government Code Chapter 176 is a Class C Misdemeanor. **Completed Form CIQ must be submitted to the Hidalgo County Clerk's Office located at 100 N. Closner, Edinburg, Texas 78539 - Hidalgo County Courthouse.**

COMPLETION AND SUBMISSION OF FORM CIQ IS THE SOLE RESPONSIBILITY OF THE PROSPECTIVE RESPONDENT. QUESTIONS REGARDING COMPLIANCE SHOULD BE DIRECTED TO YOUR LEGAL COUNSEL.

21. **CERTIFICATE OF INTERESTED PARTIES (FORM HB1295)**

As of January 1, 2016, to comply with Texas Government Code Section §2252.908, and the rules issued by the Texas Ethics Commission found in Title 1, Section 46.1, 46.3 and 46.5 of the Texas Administrative Code, we have updated and revised our RFB packet. In accordance with these requirements, business must submit a completed Certificate of Interested Parties Form 1295 to the County before the County may enter into a contract with the business entity. In box 3 of Form 1295, you will provide the RFB Project No. 2016-230, as shown on the packet. Once completed and filed with the Texas Ethics Commission, Form 1295 must be printed and signed in the presence of a notary and submitted to our office either by facsimile transmission to (956) 292-7612 or via email to: sandy.suarez@co.hidalgo.tx.us. Hidalgo County cannot enter into a contract until Form 1295 is submitted. Therefore, failure to timely submit Form 1295 signed and notarized may result in delay of award. Full instructions for completion and submittal of Form 1295 may be found on the Texas Ethics Commission website:

https://www.ethics.state.tx.us/tec/1295-Info.htm

THE AWARDED VENDOR WILL HAVE THIRTY (30) DAYS TO SUBMIT THE SIGNED NOTARIZED FORM 1295. *HIDALGO COUNTY CANNOT ENTER INTO A CONTRACT UNTIL FORM 1295 IS SUBMITTED.*

22. If, during the life of any contract or bid awarded, the successful bidder's net prices generally

available to other customers for items awarded herein are reduced below the contracted price, it is understood and agreed that the benefits of such reduction shall be extended to the County.

23. Bids, and all goods and services provided hereunder, shall comply with all federal, state and local laws concerning this type(s) of goods and/or services.

24. Minimum Standards for Responsible Prospective Bidders: A prospective bidder must affirmatively demonstrate bidder's responsibility. A prospective bidder, by submitting a bid, represents to County that it meets the following requirements:

- Possess or is able to obtain adequate financial resources as required to perform under the bid;
- Be able to comply with the required or proposed delivery schedule;
- Have a satisfactory record of performance;
- Have a satisfactory record of integrity and ethics;
- Be otherwise qualified and eligible to receive an award.

25. Successful bidder will pay or cause to be paid, without cost or expenses to County, all FICA, FUTA/SUTA and Federal Income Withholding Taxes of all employees, and all wages and benefits as required by Federal or State law. Successful bidder's officers, agents and/or employees will not be entitled to any benefits of an employee or elected official of County, including, but not limited to, benefits associated with County's civil service system.

26. Any contract award to a successful bidder will be in effect until (a) the contract expires, (b) delivery and acceptance of products, and/or performance of services ordered, or (c) terminated by County with thirty day's written notice prior to cancellation.

27. County reserves the right to enforce performance of any contract awarded hereunder in any manner prescribed by law or deemed to be in the best interest of the County in the event of breach or default by successful bidder; County reserves the right to terminate any contract immediately in the event a successful bidder fails to:

A. Meet schedules;
B. Pay any required fees or taxes; or
C. Otherwise perform in accordance with the specifications.

28. Successful bidder shall defend, indemnify and save harmless County and all its elected officials, officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful bidder, or of any agent, employee, subcontractor or supplier of successful bidder in the execution of, or performance under, any contract which may result from bid award or which arises from any event or casualty happening on or within County premises themselves or happening upon or in any halls, elevators, entrances, stairways or approaches of or to such County facilities. Successful bidder shall pay any judgment with costs which may be obtained against County growing out of such injury or damages, and shall, upon request, provide a defense to County by counsel reasonably acceptable to County. Successful bidder's indemnity hereunder shall include, but is not limited to, claims relating to patent, copyright or trademark infringement, and the like, arising out of the goods and services provided by successful bidder.

29. Successful bidder shall warrant that all items/services shall conform with the specifications and/or all warranties provided under the Uniform Commercial Code and be free from all defects in material, workmanship and the like. Items supplied under a contract pursuant to this Request for Bids shall be subject to County's approval. Items found to be defective or not meeting specifications shall be replaced by successful bidder within two business days at no expense to County. Items not picked up within one (1) week after notification shall be deemed a donation to County and may be used or disposed of at County's discretion and without waiver of any other rights of County as to the item's nonconformity.

30. This document and any disputes arising hereunder shall be governed and construed according to the laws of the State of Texas, and will be performable exclusively in Hidalgo County, Texas.

31. The successful bidder shall not assign, sell, transfer or convey its rights under any awarded contract, in whole or in part, without the prior written consent of County.

Bid
for
HIDALGO COUNTY PCT 4
"PIT RUN CALICHE"
BID NO.: 2016-230-07-06-SGS

To: Martha L. Salazar, CPPB, Purchasing Agent
Physical Address: 2802 S. Business Hwy. 281 -New Administration Building
Mailing/Postal Address: 2812 S. Business Hwy. 281
Edinburg, Texas 78539

In accordance with the Specifications, and subject to all laws and regulations of the United States and state and local laws, the undersigned bidder proposes and commits to furnish all labor, equipment, material, software and services as set forth in the documents hereinbefore mentioned. The undersigned bidder further agrees, upon acceptance of its bid, to execute a contract and/or Purchase Order issued by Hidalgo County for performing and completing the work described in the Specifications within the time stated and for the prices proposed in the documents attached hereto and made a part hereof.

Bidder acknowledges receipt of all of the pages of the documents referenced in the Invitation to Bid Checklist presented in connection with this procurement. Bidder understands that Hidalgo County reserves the right to reject any or all bids and further reserves the right to design the evaluation criteria to be used in selecting the lowest and best bid.

Bidder agrees that this bid shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids, as contained in the Specifications.

Respectfully submitted,

Bidder: _____

Address: _____

By: _____

Printed Name: _____

Title: _____

EXHIBIT "A"

HIDALGO COUNTY PRECINCT NO. 4

"PIT RUN CALICHE"

Bid No. 2016-230-07-06-SGS

SPECIFICATIONS/REQUIREMENTS

Scope of Services:

Hidalgo County is soliciting competitive sealed bids for "**Pit Run Caliche**" for Hidalgo County Precinct No. 4. In accordance with the specifications/requirements specified herein and including, but not limited to all provisions set forth in the accompanying documentation. All material purchased will be on an "**As Needed Basis**" by Precinct No. 4.

Specifications/Requirements:

1. Pit Run Caliche will be on an "**As Needed Basis**" only. There is no guaranteed annual volume. It shall be agreed and understood that Hidalgo County Precinct No. 4 will purchase no more material than is needed.

2. Bid will be based on the lowest bid per ton basis as listed on bid page form. (Exhibit "B")

3. Awarded bidder(s) **shall have on site at the Bidder's Pit location(s)**, an electronic or manual scale with a minimum of 70 ft. in length.

4. When requested, samples shall to furnished free of expense to Hidalgo County.

5. In the event that the material furnished does not meet all the above requirements (regardless of weather, tests acceptability, method of repair or other conditions) the County reserves the option to require the material supplier to replace or to reimburse the County for the unused portion of material found to be unsatisfactory.

6. **Location** is an important factor in evaluation of the bids, due to transportation costs which must be taken into consideration, if material is picked up at the plant site.

TERMS AND CONDITIONS:

1.) The contract will be in effect for a period of (1) one year with the County's option to extend for an additional one (1) year term under the same price, terms, and conditions. Prices must remain firm during the entire contract period.

2.) Hidalgo County reserves the right to continue this bid for an additional sixty (60) day grace period at the end of the contract term for unforeseen delay in award of new bid for the next contract term.

3.) Hidalgo County reserves the right to hold bids for a period of ninety (90) days without taking any action.

4.) Hidalgo County reserves the right to award the lowest qualified bid ONE or to MULTIPLE bidders if the County determines it is in its best interest to do so.

5.) After Bid is awarded and successful awarded contractor defaults in meeting the general instructions to bidder(s) and/or in complying with the contract agreement, Hidalgo County reserves the right to seek the services of the next lowest bidder(s). In such event, Hidalgo County shall charge the successful bidder the difference for any additional cost of such item.

6.) Any contract awarded to a successful bidder will be in effect until;

A.) The contract expires

B.) Delivery acceptance of products and/or performance of services ordered, or

C.) Terminated by County with thirty (30) days written notice prior to be cancellation.

7.) Insurance requirements for this project to be maintained through out the contract term (refer to Exhibit "C" for limits).

8.) Hidalgo County reserves the right to reject any/all bids, to waive any/all formalities or technicalities, or to accept the bid considered the best and most advantage to the County.

9.) Have been in business for at least two years.

10.) The bidder awarded the contract shall not engage the services of a subcontractor without prior written consent of Hidalgo County. When requesting written consent from Hidalgo County to retain a subcontractor to perform services hereunder the successful bidder must present evidence and submit to the County that the successful bidder and the proposed subcontractor possess all necessary licenses and permits to perform the services described herein and that the successful bidder and the proposed subcontractor have obtained and submitted the required insurance coverage and policies as required by Hidalgo County.

11.) It is expressly understood and agreed that in case Hidalgo county should need Pit Run Caliche Base not available within the time frame needed from the successful vendor during the term of this contract, Hidalgo County reserves the right to purchase these items from other sources other than the successful vendor and shall not be in violation of any terms or conditions of said contract. Further, Hidalgo County reserves the right to seek another vendor if at any time; vendor's prices do not conform to public pricing.

12.) Testing may be performed at the request of Hidalgo County during the length of the contract through an independent testing laboratory.

13.) The successful bidder shall not deliver products or provide services without a Hidalgo County Purchase Order, signed by an authorized agent of the Hidalgo County Purchasing Department.

14.) County may seek purchases from State awarded vendors or any cooperative purchasing programs, whenever it is in the best interest to do so.

15.) **All cost and expenses associated with the preparation and submission of (bids, proposals, statements of qualifications(RFQ) and quotes shall be the responsibility of the bidder and no reimbursements for such charges or expenses shall be passed onto Hidalgo County.**

ADDITIONAL INFORMATION:

Hidalgo County is requesting that any and all questions, inquiries and clarifications regarding quotes, bids, proposals or statements of qualifications be addressed to, Martha L. Salazar, CPPB, Purchasing Agent, 2802 S. Bus. Hwy. 281, Edinburg, Tx 78539. **TELEPHONE INQUIRIES WILL NOT BE ACCEPTED**

ALL WRITTEN INQUIRIES WILL BE ACCEPTED VIA FACSIMILE NO LATER THAN, Monday, JUNE 27, 2016 by 5:00 p.m. Responses to said inquiries will be sent to all applicants via facsimile by no later than Wednesday, JUNE 29, 2016 by 5:00 P.M.

EXHIBIT "B"

HIDALGO COUNTY PRECINCT NO. 4
"PIT RUN CALICHE"
BID NO.: 2016-230-07-06-SGS

BID PAGE

Fill in each section of the Bid Page

AWARD WILL BE BASED ON THE LOWEST BID PER TON MEETING ALL REQUIRED SPECIFICATIONS/REQUIREMENTS. Pit Run Caliche will be on an "**As Needed Basis**" only

NIGP Commodity Code: 750-14-Caliche

	BUSINESS NAME	PIT LOCATION (Exact location/Address)	PRICE PER TON
			$
			$

TERM: The contract will be in effect for a period of (1) one year with the County's option to extend for an additional one (1) year term, under the same price, terms, and conditions. Prices must remain firm during the contract period.

BIDDER/COMPANY NAME:_____

ADDRESS:_____

CITY/STATE/ZIP CODE:_____

PHONE & FAX NUMBER:_____/_____

E-MAIL ADDRESS:_____

CELLULAR NUMBER:_____

AUTHORIZED SIGNATURE:_____

PRINTED NAME:_____

TITLE:_____

DATE:_____

(Must be submitted with Bid Packet)

EXHIBIT "C"

Insurance Requirements

The Bidder awarded the contract shall furnish proof of insurance, which will also include any subcontractor that is subcontracted by the bidder in at least the following limits, to be in place prior to providing any services under this Contract and to continue at all times in force in effect during the term of this Contract:

1. A Five Hundred Thousand Dollar ($500,000.00) Comprehensive General Liability insurance policy providing additional coverage to all underlying liabilities of County.

2. Automobile liability insurance policy with limits of at least Three Hundred Thousand Dollars ($300,000.00) per person and Five Hundred Thousand Dollars ($500,000.00) per occurrence. Coverage should include injury to or death of persons and property damage claims with limits up to Five Hundred Thousand ($500,000.00) arising out of the services provided to County hereunder.

3. Uninsured/Underinsured motorist coverage in an amount equal to the bodily injury limits set forth immediately above;

4. Workers compensation insurance in amounts established by Texas law, unless the Bidder is specifically exempted from the Texas Workers Compensation Act, Texas Labor Code Chapter 401, et. seq.

Hidalgo County will only accept certificates of insurance on an Acord form (as attached hereto). Certificates of insurance shall name Hidalgo County as additional insured and must be submitted to County for approval prior to any services being performed by Contractor. Each policy of insurance required hereunder shall extend for a period equivalent to, or longer than the term of the Contract, and any insurer hereunder shall be required to give at least thirty (30) days written notice to the County prior to the cancellation of any such coverage on the termination date, or otherwise. This Contract shall be automatically suspended upon the cancellation, or other termination, of any required policy of insurance hereunder, and such suspension shall continue until evidence adequate replacement coverage is provided to County. If replacement coverage is not provided within thirty (30) days following suspension of the Contract, this Contract shall automatically terminate.

Revised 10/01/08

ACORD CERTIFICATE OF INSURANCE

DATE (MM/DD/YY)

PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
	INSURERS AFFORDING COVERAGE
INSURED	INSURER A:
	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THER TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	**GENERAL LIABILITY** ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS MADE ☐ OCCUR ☐ OWNER'S & CONT. PROT ☐ OWNER'S PROTECTIVE LIABILITY GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☐ LOC				EACH OCCURRENCE	$
					FIRE DAMAGE (Any one fire)	$
					MED (Any one person)	$
					PER & ADV INJURY	$
					AL AGGREGATE	$
					DUCTS – COMP/OP AGG	$
B	**AUTOMOBILE LIABILITY** ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident)	$
					BODILY INJURY (Per person)	$
					BODILY INJURY (Per accident)	$
					PROPERTY DAMAGE (Per accident)	$
	GARAGE LIABILITY ☐ ANY AUTO				AUTO ONLY-EA ACCIDENT	$
					OTHER THAN AUTO ONLY EA ACC	$
					AGG	$
C	**EXCESS LIABILITY** ☐ OCCUR ☐ CLAIMS MADE ☐ DEDUCTIBLE ☐ RETENTION $				EACH OCCURENCE	$
					AGGREGATE	$
						$
						$
						$
D	**WORKERS COMPENSATION AND EMPLOYER'S LIABILITY**				WC STATU-TORY LIMITS ☐ OTHER	
					E.L. EACH ACCIDENT	$
					E.L. DISEASE-EA EMPLOYEE	$
					E.L. DISEASE-POLICY LIMIT	$
	OTHER					

DESCRIPTION OF OPERATIONS / LOCATION / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

County of Hidalgo shall be named as additional insured on all Commercial General Liability policies.

CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER: _____ CANCELLATION
Hidalgo County **Attn: Purchasing Department** **2812 S Highway Bus. 281** **Edinburg, Texas 78539**	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BY CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL ***30*** DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE

SAMPLE

Insurance Requirement Acknowledgment

I, _____, authorized representative for _____,
Company/Vendor

hereby acknowledge receipt of the County's required insurance limits. Said requirements:

☐ will be acquired within 10 working days after notification from Purchasing Department of bid awarded by the Hidalgo County Commissioner's Court;

☐ will acquire additional amounts required to meet the County's requirements within 10 working days after notification from Purchasing Department of bid award by the Hidalgo County Commissioner's Court; currently carry the following:

Automobile Liability: $_____ General Liability: $_____

☐ have already been met; see attached copy of insurance certificate.

_____ _____.
Authorized Representative Date

Notice to Bidder:
A certificate of insurance for the required insurance limits shall be provided to the Purchasing Department's Contract Managers in order to qualify for award of bid and to execute a contract between your Company and the County

Failure to provide Certificates of Insurance to the Purchasing Department's Contract Managers will cause the bid award to be rescinded and re-awarded to next lowest bidder. Certificates of Insurance will be monitored and verified on a **quarterly basis** to ensure coverage policy is in place. It is the Company's obligation to maintain the appropriate insurance coverage throughout the term of the contract.

THIS FORM MUST ACCOMPANY BID PACKET

PROJECT REQUIREMENTS ACKNOWLEDGMENT

This is to certify that I, _____, possess all of the APPLICABLE:

1. Licenses: _____.
2. Bonds: _____.
3. Certificates: _____.
4. Permits: _____.
5. Other: _____.

Necessary to carry out the required project. Furthermore, I am providing copies of the required documentation so that, if my company is awarded this bid, I may be eligible to enter into a contract with Hidalgo County and proceed to complete the project in a timely manner.

* Any licenses, bonds, certificates, permits, etc. which are required must be presented as part of the bid packet in order to expedite the bid evaluation process. Failure to provide said documentation will result in the disqualification of your bid.

_____ _____.
Authorized Signature Date

_____.
Company

_____.
Address

_____.
City, State, Zip

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY
Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____
Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

_____ _____
Signature of vendor doing business with the governmental entity Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

HIDALGO COUNTY
PURCHASING DEPARTMENT
Bidder/Vendor Application

Complete in print or type. Please return this application to the Hidalgo County Purchasing Department thru Facsimile: (956) 318-2629 or (956) 292-7612 in person or regular mail to: 2812 S. Business Hwy. 281 , Edinburg, Texas 78539 or e-mail: purchasing@co.hidalgo.tx.us

Company Name: **Telephone No. ( )**

dba Name:

Legal Name:

Mailing Address : **Fax No. ( )**

Physical Address:

City, State, Zip **Tax I.D. No.**

Remit to Address : **City, State, Zip**

E-Mail Address:

Representative(s) Name(s) & Title(s)

Type of Organization (check one): _____ Individual _____ Partnership _____ Corporation _____Non-Profit _____ LLC _____ Sole Proprietor _____ Other, Specify

State Identification No._____ (Please attached completed W-9 form with this application)

Federal Identification No. or (if individual) SS No.

State of Incorporation: _____ Date:_____ Other:

Type of Business (check one): _____ Manufacturer _____ Wholesaler _____ Retailer _____ Broker _____ Distributor _____ Service Organization _____ Other, Specify

Name & Title of Person(s) Authorized to Sign Bids, Proposals, and/or Contracts:

Small and/or Disadvantaged Business Information (check application criteria)
Small Business:_____Disadvantaged Business (At Least 51% Ownership)

☐ Less than 125,000 annual gross receipt
☐ Less than 250,000 annual gross receipt
☐ Less than 499,000 annual gross receipt
☐ More than 500,000 annual gross receipt

☐ Black American
☐ Hispanic American
☐ Asian Pacific American

☐ Native American
☐ Women
☐ Other

Have you been certified as a HUB or an MBE/WBE source?: ☐ Yes ☐ No

Indicate Certification No.(s):_____ or are Certificate(s) attached?: ☐ Yes ☐ No

What type of product(s) is/are solicited by your company?:

Would you like to be provided with specifications for procurements of such products?: ☐ Yes ☐ No

To Be Completed by the County: Rec'd by (Purchasing):_____ Date Rec'd by (Purchasing):

Date Forwarded Information to Auditor's Office:_____Entry Date: _____ Vendor No.:

HISTORICALLY UNDERUTILIZED BUSINESS (HUB) DECLARATION

The primary objective of the Hidalgo County HUB Program is to ensure Historically Underutilized Businesses receive a fair and equal opportunity for participation in the County's procurement process. This fact holds true for Services (Professional & Non-Professional), Commodities, and Construction contracts and any subcontracts thereto. The program strongly encourages Prime Contractors to provide subcontracting opportunities to Certified Hub Contractors/Vendors. Our goal for HUB contractor/vendor participation, as well as HUB subcontractor participation is 30%. To be considered as a "Certified HUB Contractor/Vendor" the contractor/vendor must have been certified by, and hold a current and valid certification with any of the three agencies listed below.

Have you been Certified as a HUB or an MBE/WBE source?: ☐Yes ☐ No

If yes, by whom?: ☐ Texas Building & Procurement Commission ☐ Other_____

Indicate Certification No(s).:_____ or Are Certificate(s) Attached?: ☐ Yes ☐ No

---

LIST OF CERTIFIED HUB SUBCONTRACTORS

(Attach additional pages if necessary)

What percentage of the Bid, RFP,or RFQ is to be subcontracted with Certified HUB sources?: _____% (List HUB Subcontractor information below).

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): ☐ Texas Building & Procurement Commission ☐Other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): ☐ Texas Building & Procurement Commission ☐Other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): ☐ Texas Building & Procurement Commission ☐Other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

Form **W-9**
(Rev. August 2013)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____

☐ Other (see instructions) ▶

Exemptions (see instructions):
Exempt payee code (if any) _____
Exemption from FATCA reporting code (if any) _____

Address (number, street, and apt. or suite no.)

Requester's name and address (optional)

City, state, and ZIP code

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
___ – ___ – ____

Employer identification number
__ – _____

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below), and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here | **Signature of U.S. person** ▶ | **Date** ▶

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IRS has created a page on IRS.gov for information about Form W-9, at *www.irs.gov/w9*. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity,
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust, and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS a percentage of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* on page 1.

What is FATCA reporting? The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Name

If you are an individual, you must generally enter the name shown on your income tax return. However, if you have changed your last name, for instance, due to marriage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

Sole proprietor. Enter your individual name as shown on your income tax return on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name/disregarded entity name" line.

Partnership, C Corporation, or S Corporation. Enter the entity's name on the "Name" line and any business, trade, or "doing business as (DBA) name" on the "Business name/disregarded entity name" line.

Disregarded entity. For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulation section 301.7701-2(c)(2)(iii). Enter the owner's name on the "Name" line. The name of the entity entered on the "Name" line should never be a disregarded entity. The name on the "Name" line must be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on the "Name" line. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on the "Business name/disregarded entity name" line. If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Note. Check the appropriate box for the U.S. federal tax classification of the person whose name is entered on the "Name" line (Individual/sole proprietor, Partnership, C Corporation, S Corporation, Trust/estate).

Limited Liability Company (LLC). If the person identified on the "Name" line is an LLC, check the "Limited liability company" box only and enter the appropriate code for the U.S. federal tax classification in the space provided. If you are an LLC that is treated as a partnership for U.S. federal tax purposes, enter "P" for partnership. If you are an LLC that has filed a Form 8832 or a Form 2553 to be taxed as a corporation, enter "C" for C corporation or "S" for S corporation, as appropriate. If you are an LLC that is disregarded as an entity separate from its owner under Regulation section 301.7701-3 (except for employment and excise tax), do not check the LLC box unless the owner of the LLC (required to be identified on the "Name" line) is another LLC that is not disregarded for U.S. federal tax purposes. If the LLC is disregarded as an entity separate from its owner, enter the appropriate tax classification of the owner identified on the "Name" line.

Other entities. Enter your business name as shown on required U.S. federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name/disregarded entity name" line.

Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the *Exemptions* box, any code(s) that may apply to you. See *Exempt payee code* and *Exemption from FATCA reporting code* on page 3.

Exempt payee code. Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends. Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.

Note. If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding.

The following codes identify payees that are exempt from backup withholding:

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)

2—The United States or any of its agencies or instrumentalities

3—A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities

5—A corporation

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States

7—A futures commission merchant registered with the Commodity Futures Trading Commission

8—A real estate investment trust

9—An entity registered at all times during the tax year under the Investment Company Act of 1940

10—A common trust fund operated by a bank under section 584(a)

11—A financial institution

12—A middleman known in the investment community as a nominee or custodian

13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5[2]
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney, and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Reg. section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Reg. section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on page 2), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local Social Security Administration office or get this form online at *www.ssa.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: *A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.*

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on the "Name" line must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account [1]
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor [2]
4. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee [1]
b. So-called trust account that is not a legal or valid trust under state law	The actual owner [1]
5. Sole proprietorship or disregarded entity owned by an individual	The owner [3]
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulation section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity [4]
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulation section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or "DBA" name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 1.

*Note. Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, social security number (SSN), or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: *spam@uce.gov* or contact them at *www.ftc.gov/idtheft* or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

Certification
Regarding Debarment, Suspension and Ineligibility

As is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 76, Government-wide Debarment and Suspension, the applicant certifies, to the best of his or her knowledge and belief, that both it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;

b. Have not within a three-year period preceding this bid proposal and/or application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a government entity with commission of any of the offenses enumerated herein; and

d. Have not within a three-year period preceding this bid proposal and/or application had one or more public transactions terminated for cause or default.

Signature:_____
Print Name:_____
Title:_____
Telephone Number:_____
Date:_____

If the bidder is unable to certify to all of the statements in this Certification, such bidder should attach an explanation to this proposal.

EXHIBIT "B"

BID PAGE

EXHIBIT "B"
HIDALGO COUNTY PRECINCT NO. 4
"PIT RUN CALICHE"
BID NO.: 2016-230-07-06-SGS

BID PAGE
Fill in each section of the Bid Page

AWARD WILL BE BASED ON THE LOWEST BID PER TON MEETING ALL REQUIRED SPECIFICATIONS/REQUIREMENTS. Pit Run Caliche will be on an "**As Needed Basis**" only

NIGP Commodity Code: 750-14-Caliche

BUSINESS NAME	PIT LOCATION (Exact location/Address)	PRICE PER TON
Roy's Hauling Service	Big Five Pit: 8600 N. Big Five Rd. Edinburg, TX 78541	$ 2.40
	San Manuel Pit: ½ mile W. of Fm 3250, off Shelly Lori Rd.	$ 2.40

TERM: The contract will be in effect for a period of (1) one year with the County's option to extend for an additional one (1) year term, under the same price, terms, and conditions. Prices must remain firm during the contract period.

BIDDER/COMPANY NAME: Roy's Hauling Service
ADDRESS: P.O. Box 1896
CITY/STATE/ZIP CODE: Edinburg, TX 78540
PHONE & FAX NUMBER: 956.383.2206 / 956.383.2569
E-MAIL ADDRESS: royshaulinginc@aol.com
CELLULAR NUMBER:
AUTHORIZED SIGNATURE:
PRINTED NAME: Kristina Balderas
TITLE: Corp. Manager
DATE: 07-05-2016

OPENED
10:07
7-6-16
Witnessed

(Must be submitted with Bid Packet)

EXHIBIT "C"

CERTIFICATE OF INSURANCE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 06/09/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
SOUTH TEXAS SOLUTIONS
P.O. BOX 1415
EDINBURG, TEXAS 78540

CONTACT NAME: KRISTINA BALDERAS
PHONE (A/C, No, Ext): 956.343.2206 FAX (A/C, No):
E-MAIL ADDRESS: SOUTHTEXASSOLUTIONS@AOL.COM

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : CAPITOL SPECIALTY INS CO	
INSURER B : PROGRESSIVE COUNTY MUTUAL INS	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
ROY'S HAULING SERVICE, INC.
P.O. BOX 1896
EDINBURG, TEXAS 78540

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [ ] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [ ] LOC			CS02597106-01	11/30/2015	11/30/2016	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 500,000 $ 100,000 $ 5,000 $ 500,000 $ 1,000,000 $ 1,000,000
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [X] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS			03764240-2	05/24/2016	11/24/2016	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 500,000 $ $ $
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE AGGREGATE	$ $ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N / A				WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER
COUNTY OF HIDALGO
2802 S. HIGHWAY 281
EDINBURG, TEXAS 78539

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
11/06/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: KRISTINA BALDERAS
SOUTH TEXAS SOLUTIONS P.O. BOX 1415 EDINBURG, TEXAS 78540	PHONE (A/C, No, Ext): 9563432206 FAX (A/C, No): E-MAIL ADDRESS: SOUTHTEXASSOLUTIONS@AOL.COM
	INSURER(S) AFFORDING COVERAGE — NAIC #
	INSURER A : TEXAS MUTUAL INSURANCE COMPANY
INSURED ROY'S HAULING SERVICE, INC. P.O. BOX 1896 EDINBURG, TEXAS 78540	INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: ☐ N/A If yes, describe under DESCRIPTION OF OPERATIONS below			0001296826	11/06/2015	11/06/2016	☐ WC STATU-TORY LIMITS ☐ OTH-ER	
							E.L. EACH ACCIDENT	$ 100,000
							E.L. DISEASE - EA EMPLOYEE	$ 100,000
							E.L. DISEASE - POLICY LIMIT	$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

COUNTY OF HIDALGO
2802 S. BUSINESS HIGHWAY 281
EDINBURG, TEXAS 78539

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-92113

Date Filed:
07/28/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
ROY'S HAULING SERVICE
EDINBURG, TX *United States*

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
COUNTY OF HIDALGO

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
2016-230 - PCT4 PITRUN CALICHE
PITRUN CALICHE

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

RAQUEL DELGADO
My Commission Expires
February 25, 2017

AFFIX NOTARY'S STAMP / SEAL ABOVE

Signature of authorized agent of contracting business entity

Sworn to and subscribed before me, by the said Kristina Balderas, this the 28th day of July, 20 16, to certify which, witness my hand and seal of office.

Signature of officer administering oath — Printed name of officer administering oath — Title of officer administering oath

Forms provided by Texas Ethics Commission — www.ethics.state.tx.us — Version V1.0.277

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-92113

Date Filed:
07/28/2016

Date Acknowledged:
07/29/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

ROY'S HAULING SERVICE
EDINBURG, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

COUNTY OF HIDALGO

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

2016-230 - PCT4-PITRUN CALICHE
PITRUN CALICHE

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Zimbra **leticia.saenz@co.hidalgo.tx.us**

RE: Review & Approve as to form-Contract# C-16-230-09-13-Roy's Hauling Service Inc-Pct 4

From : Steve Crain <scrain@atlashall.com> Wed, Sep 07, 2016 10:57 AM

Subject : RE: Review & Approve as to form-Contract# C-16-230-09-13-Roy's Hauling Service Inc-Pct 4 1 attachment

To : 'Leticia H. Saenz' <leticia.saenz@co.hidalgo.tx.us>

Good to go.

From: Leticia H. Saenz [mailto:leticia.saenz@co.hidalgo.tx.us]
Sent: Wednesday, September 07, 2016 10:26 AM
To: Steve Crain <scrain@atlashall.com>
Cc: Sandy Suarez <sandy.suarez@co.hidalgo.tx.us>; Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>
Subject: Review & Approve as to form-Contract# C-16-230-09-13-Roy's Hauling Service Inc-Pct 4

Good morning, Mr. Crain-
Please review and approve as to form agreement (attached hereto) with **Roy's Hauling Service, Inc.** for the purposes of awarding: **"Pit Run Caliche"** for **Precinct 4.**

*Note: will be placed for next CC agenda for final approval.

Please advise.

Respectfully,

Leticia H. Saenz, CPPB/Contracts Manager
Hidalgo County Purchasing Department
2812 South Business Highway 281
Edinburg, Texas 78539
P(956) 318-2626 **F**(956) 318-2629
Email: leticia.saenz@co.hidalgo.tx.us

AI-56250 **Purchasing Department** **12. D. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted By: Rocio Villarreal, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

Acceptance and approval of the Amendment to the End User License Agreement between Tyler Technologies, Inc. and Hidalgo County for the maintenance and support services.

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1100-415-00-200-002-0-336

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Funds available as of 9/9/16.

Attachments

AMENDMENT-LEGAL APPROVAL
FORM 1295-SUBMITTED
FORM 1295-ACKNOWLEDGED
Amendment

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/09/2016 04:14 PM
Glinda Pacheco	Glinda Pacheco	09/09/2016 04:33 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Rocio Villarreal		Started On: 09/07/2016 01:41 PM
Final Approval Date: 09/09/2016		

Zimbra **rocio.villarreal@co.hidalgo.tx.us**

Re: Amendment for 2016 Maintenance

From : Josephine Ramirez <josephine.ramirez@da.co.hidalgo.tx.us>
Tue, Sep 06, 2016 08:41 AM
1 attachment

Subject : Re: Amendment for 2016 Maintenance

To : Rocio Villarreal <rocio.villarreal@co.hidalgo.tx.us>

Rocio,

Looks good.

Josephine Ramirez Solis

Assistant Criminal District Attorney

Chief - Civil Division

Office of Criminal District Attorney

Hidalgo County, Texas

100 E. Cano

Edinburg, TX 78539

(956) 292-7609 ext. 8186

(956) 318-2079 FAX

josephine.ramirez@da.co.hidalgo.tx.us

****

The information contained in this e-mail may be 1.SUBJECT TO THE ATTORNEY-CLIENT PRIVILEGE; 2.ATTORNEY WORK PRODUCT; and/or 3.CONFIDENTIAL. It is intended only for the individual or entity designated above. Any distribution, copying, or use of or reliance upon the information contained in this e-mail by or to anyone other than the recipient designated above by the sender is unauthorized and strictly prohibited. **IF YOU HAVE RECEIVED THIS COMMUNICATION**

IN ERROR, PLEASE ADVISE THE SENDER BY REPLY E-MAIL TO josephine.ramirez@da.co.hidalgo.tx.us AND DELETE THE COMMUNICATION.

****

On Fri, Sep 2, 2016 at 10:04 AM, Rocio Villarreal <rocio.villarreal@co.hidalgo.tx.us> wrote:

> Ms. Josie:
> I have attached the email received by IT Dept for the additional language as requested. Please review and approve as to form.
>
> Thank you.
>
> ROCIO VILLARREAL
> HIDALGO COUNTY PURCHASING DEPT.
> CONTRACTS MANAGER
> (956) 318-2626 Work
> (956) 292-7000 Ext. 4868 Work
> rocio.villarreal@co.hidalgo.tx.us
> 2812 S. Business Hwy 281
> Edinburg, Texas 78539
>
> ---
>
> **From:** "Josephine Ramirez" <josephine.ramirez@da.co.hidalgo.tx.us>
> **To:** "Rocio Villarreal" <rocio.villarreal@co.hidalgo.tx.us>, "Martha Salazar" <martha.salazar@co.hidalgo.tx.us>
> **Cc:** "Renan Ramirez" <renan.ramirez@co.hidalgo.tx.us>, "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
> **Sent:** Thursday, August 4, 2016 11:32:22 AM
> **Subject:** Re: Amendment for 2016 Maintenance
>
> Rocio,
>
> I am attaching the signature page to show where the additional language should be added, as well as some recommended language to include.
>
> Let me know if you have any questions.
>
> Thank you,
>
> **Josephine Ramirez Solis**

Assistant Criminal District Attorney

Chief - Civil Division

Office of Criminal District Attorney

Hidalgo County, Texas

100 E. Cano

Edinburg, TX 78539

(956) 292-7609 ext. 8186

(956) 318-2079 FAX

josephine.ramirez@da.co.hidalgo.tx.us

****

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****

On Wed, Jul 27, 2016 at 4:44 PM, Rocio Villarreal <rocio.villarreal@co.hidalgo.tx.us> wrote:

> Josie:
>
> Is it possible you can provide the language you have requested to add in the amendment. I have attached the vendor's response on your previous email.
>
> Thank you.
>
> ROCIO VILLARREAL
> HIDALGO COUNTY PURCHASING DEPT.
> CONTRACTS MANAGER
> (956) 318-2626 Work
> (956) 292-7000 Ext. 4868 Work

rocio.villarreal@co.hidalgo.tx.us
2812 S. Business Hwy 281
Edinburg, Texas 78539

From: "Josephine Ramirez" <josephine.ramirez@da.co.hidalgo.tx.us>
To: "Rocio Villarreal" <rocio.villarreal@co.hidalgo.tx.us>
Cc: "Renan Ramirez" <renan.ramirez@co.hidalgo.tx.us>, "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
Sent: Thursday, July 14, 2016 4:47:29 PM
Subject: Re: Amendment for 2016 Maintenance

I would recommend including additional language referencing the Amended Agreement approved in 2015.

Josephine Ramirez Solis

Assistant Criminal District Attorney

Chief - Civil Division

Office of Criminal District Attorney

Hidalgo County, Texas

100 E. Cano

Edinburg, TX 78539

(956) 292-7609 ext. 8186

(956) 318-2079 FAX

josephine.ramirez@da.co.hidalgo.tx.us

****

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****

On Thu, Jul 14, 2016 at 1:28 PM, Rocio Villarreal <rocio.villarreal@co.hidalgo.tx.us> wrote:

Good Afternoon Ms. Josie:

Can you please provide a status on an email sent to you for the review and approve as to form to an amendment for Tyler Tech.

Thank you.

ROCIO VILLARREAL
HIDALGO COUNTY PURCHASING DEPT.
CONTRACTS MANAGER
(956) 318-2626 Work
(956) 292-7000 Ext. 4868 Work
rocio.villarreal@co.hidalgo.tx.us
2812 S. Business Hwy 281
Edinburg, Texas 78539

----- Original Message -----
From: "Rocio Villarreal" <rocio.villarreal@co.hidalgo.tx.us>
To: "josephine ramirez" <josephine.ramirez@da.co.hidalgo.tx.us>
Cc: "Renan Ramirez" <renan.ramirez@co.hidalgo.tx.us>, "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
Sent: Wednesday, July 6, 2016 5:04:47 PM
Subject: Fwd: Amendment for 2016 Maintenance

Ms. Josie:

Can you please review the email below on reference to an amendment approved last year allowing to transfer the maintenance services from CUC to Tyler technology. If you have any questions regarding this issue, please contact me at ext. 4868.

Thank you.

ROCIO VILLARREAL
HIDALGO COUNTY PURCHASING DEPT.
CONTRACTS MANAGER
(956) 318-2626 Work

(956) 292-7000 Ext. 4868 Work
rocio.villarreal@co.hidalgo.tx.us
2812 S. Business Hwy 281
Edinburg, Texas 78539

----- Forwarded Message -----
From: "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
To: "Rocio Villarreal" <rocio.villarreal@co.hidalgo.tx.us>
Cc: "Renan Ramirez" <renan.ramirez@co.hidalgo.tx.us>
Sent: Monday, June 20, 2016 10:32:09 AM
Subject: Fwd: Amendment for 2016 Maintenance

Rocio,

I am forwarding this document (Hidalgo County - proforma Approval.pdf) from Tyler so that we can pay the 2016 maintenance for Odyssey. We have always paid maintenance through the CUC, but we can't pay the CUC since Tyler no longer has a contract with them. We passed the attached amendment (Hidalgo County TX CUC Disengagement Amendment Effective 10.01.15.pdf) which essentially transferred all the terms from the Hidalgo CUC original contract to Tyler. The Odyssey maintenance rates have increased for 2016 which means they need to be updated so the Auditor can reference them when paying these invoices. A yearly financial plan was always provided by the CUC, but now needs to come from Tyler. Will the attached document (Hidalgo County - performa Approval.pdf) suffice for updating the prices for the Tyler maintenance? If so, please proceed in putting it on the next agenda for Commissioner's Court. Let me know if you have any further questions.

Thank you,

Phil

----- Forwarded Message -----
From: "Stephen Stehling" <Stephen.Stehling@tylertech.com>
To: "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
Cc: "Patrick Green" <Patrick.Green@tylertech.com>
Sent: Tuesday, June 14, 2016 11:14:20 AM
Subject: Amendment for 2016 Maintenance

Phil,

Would the attached document work? It states our projected costs and

allows the court to approve and sign.

We would also add the Integration Toolkit license and maintenance costs.

Stephen Stehling
Account Executive
Tyler Technologies, Inc.
P: 214.454.1486
F: 972.713.3777
http://www.tylertech.com

---------- Forwarded message ----------
From: "Stehling, Stephen" <Stephen.Stehling@tylertech.com>
To: Rocio Villarreal <rocio.villarreal@co.hidalgo.tx.us>
Cc: Phillip Veale <phillip.veale@co.hidalgo.tx.us>, "Green, Patrick" <Patrick.Green@tylertech.com>, "Teno, Erik" <Erik.Teno@tylertech.com>
Date: Wed, 27 Jul 2016 16:19:50 +0000
Subject: RE: Amendment for 2016 Maintenance
Could you have your attorney provide the specific language they are requesting?

I also included Patrick and Erik from our team. Both have been assisting in this process.

Thanks, Rocio.

Stephen Stehling
Account Executive
P: 214.454.1486
-----Original Message-----
From: Rocio Villarreal [mailto:rocio.villarreal@co.hidalgo.tx.us]
Sent: Wednesday, July 27, 2016 11:09 AM
To: Stehling, Stephen
Cc: Phillip Veale
Subject: Fwd: Amendment for 2016 Maintenance

Mr. Stehling:

Our legal is requesting for additional language to be added to reference the amendment agreement approved in 2015.

Can you please have the amendment modified and return for approval.

Thank you.

ROCIO VILLARREAL
HIDALGO COUNTY PURCHASING DEPT.
CONTRACTS MANAGER
(956) 318-2626 Work
(956) 292-7000 Ext. 4868 Work
rocio.villarreal@co.hidalgo.tx.us
2812 S. Business Hwy 281
Edinburg, Texas 78539

----- Forwarded Message -----
From: "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
To: "Rocio Villarreal" <rocio.villarreal@co.hidalgo.tx.us>
Cc: "Renan Ramirez" <renan.ramirez@co.hidalgo.tx.us>
Sent: Monday, June 20, 2016 10:32:09 AM
Subject: Fwd: Amendment for 2016 Maintenance

Rocio,

I am forwarding this document (Hidalgo County - proforma Approval.pdf) from Tyler so that we can pay the 2016 maintenance for Odyssey. We have always paid maintenance through the CUC, but we can't pay the CUC since Tyler no longer has a contract with them. We passed the attached amendment (Hidalgo County TX CUC Disengagement Amendment Effective 10.01.15.pdf) which essentially transferred all the terms from the Hidalgo CUC original contract to Tyler. The Odyssey maintenance rates have increased for 2016 which means they need to be updated so the Auditor can reference them when paying these invoices. A yearly financial plan was always provided by the CUC, but now needs to come from Tyler. Will the attached document (Hidalgo County - performa Approval.pdf) suffice for updating the prices for the Tyler maintenance? If so, please proceed in putting it on the next agenda for Commissioner's Court. Let me know if you have any further questions.

Thank you,

Phil

----- Forwarded Message -----
From: "Stephen Stehling" <Stephen.Stehling@tylertech.com>
To: "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
Cc: "Patrick Green" <Patrick.Green@tylertech.com>
Sent: Tuesday, June 14, 2016 11:14:20 AM
Subject: Amendment for 2016 Maintenance

Phil,

Would the attached document work? It states our projected costs and allows the court to approve and sign.

We would also add the Integration Toolkit license and maintenance costs.

Stephen Stehling
Account Executive
Tyler Technologies, Inc.
P: 214.454.1486
F: 972.713.3777
http://www.tylertech.com

---------- Forwarded message ----------
From: Phillip Veale <phillip.veale@co.hidalgo.tx.us>
To: Rocio Villarreal <rocio.villarreal@co.hidalgo.tx.us>
Cc: Renan Ramirez <renan.ramirez@co.hidalgo.tx.us>
Date: Tue, 23 Aug 2016 11:13:32 -0500 (CDT)
Subject: Fwd: Pro Forma with Amendment Language
Rocio,

Here is the proforma document with the language that Josie requested in order to submit the Odyssey maintenance prices to Commissioner's Court for approval. Please continue to proceed with the agenda item. Let me know if I can do anything else to help expedite this process.

Thanks,

Phil

From: "Erik Teno" <Erik.Teno@tylertech.com>
To: "Phillip Veale" <phillip.veale@co.hidalgo.tx.us>
Cc: "Renan Ramirez" <renan.ramirez@co.hidalgo.tx.us>, "Stephen Stehling" <Stephen.Stehling@tylertech.com>, "Chris Perry" <Chris.Perry@tylertech.com>
Sent: Tuesday, August 23, 2016 11:05:24 AM
Subject: Pro Forma with Amendment Language

Hi Phillip,

Attached is the Pro Forma with the Amendment Language provided on the second page. Let me know if you have questions or concerns.

Thank you,

Erik Teno
Senior Support Analyst
Tyler Technologies, Inc.

P: 877.874.8499
F: 972.713.3777
www.tylertech.com

Find answers. Get Connected. Join the Discussion.

---

tylercommunity.png
10 KB

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-110131

Date Filed:
09/09/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Tyler Technologies, Inc.
Plano, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Hidalgo County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
Amendment to C-07-336-07-03
OCR Level 3

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Carter, Glenn	Plano, TX United States	X	
Womble, Dustin	Lubbock, TX United States	X	
King, J. Luther	Plano, TX United States	X	
Cline, Brenda	Plano, TX United States	X	
Brattain, Donald	Plano, TX United States	X	
Pope, Daniel	Plano, TX United States	X	
Leinweber, Larry	Plano, TX United States	X	
Miller, Brian	Plano, TX United States	X	
Moore, H. Lynn	Plano, TX United States	X	
Yeaman, John	Plano, TX United States	X	
Marr, John	Yarmouth, TX United States	X	

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-110131

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Tyler Technologies, Inc.
Plano, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

Amendment to C-07-336-07-03
OCR Level 3

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

NOTARY PUBLIC STATE OF TEXAS
ANNE PATTON CAFFEY
Notary ID # 11814272
My Commission Expires
December 21, 2019

AFFIX NOTARY STAMP / SEAL ABOVE

Signature of authorized agent of contracting business entity

Sworn to and subscribed before me, by the said Craig Seekamp, this the 9TH day of September, 20 16, to certify which, witness my hand and seal of office.

Anne Patton Caffey — Signature of officer administering oath
ANNE PATTON CAFFEY — Printed name of officer administering oath
Notary — Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-110131

Date Filed:
09/09/2016

Date Acknowledged:
09/09/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Tyler Technologies, Inc.
Plano, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

Amendment to C-07-336-07-03
OCR Level 3

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Carter, Glenn	Plano, TX United States	X	
Womble, Dustin	Lubbock, TX United States	X	
King, J. Luther	Plano, TX United States	X	
Cline, Brenda	Plano, TX United States	X	
Brattain, Donald	Plano, TX United States	X	
Pope, Daniel	Plano, TX United States	X	
Leinweber, Larry	Plano, TX United States	X	
Miller, Brian	Plano, TX United States	X	
Moore, H. Lynn	Plano, TX United States	X	
Yeaman, John	Plano, TX United States	X	
Marr, John	Yarmouth, TX United States	X	

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-110131

Date Filed:
09/09/2016

Date Acknowledged:
09/09/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Tyler Technologies, Inc.
Plano, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

Amendment to C-07-336-07-03
OCR Level 3

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

tyler technologies

Empowering people who serve the public®

Remittance
Tyler Technologies, Inc.
(FEIN 75-2303920)
P.O. Box 203556
Dallas, TX 75320-3556

Questions
Tyler Technologies - Courts & Justice
Phone: 1-800-772-2260 Press 2, then 3
Fax: 1-866-673-3274
Email: ar@tylertech.com

THIS IS NOT AN INVOICE
PROFORMA

Company	Order No.	Date	Page
020	5013	08/23/2016	1 of 2

To: Hidalgo County IT Dept.
100 N Closner, 1st Floor
Courthouse
Attn: Renan Ramirez
Edinburg, TX 78539

Ship To: Hidalgo County IT Dept.
100 N Closner, 1st Floor
Courthouse
Attn: Renan Ramirez
Edinburg, TX 78539

Customer Grp/No.	Customer PO#	Payment Terms	Currency Code	Ship Via	Salesperson Cd
1 41560		Net 30	USD		

No.	Item/ Description/ Comments	Drop Ship	# Users	Quantity	U/M	Unit Price	Disc %	Total Cost
Contract No.: C&J								
1	Renewal: 6O1CASEM Hidalgo ODY First Case Type Quarterly Maintenance **Maintenance Plan: ; Start: 01/01/2016, End: 12/31/2016; Term: 12 months** :	No	1	1	EA	158,015.81	.00	158,015.81
2	Renewal: 6OSHERIFF7M Hidalgo County Odyssey Sheriff Jail Management Maintenance and support **Maintenance Plan: ; Start: 01/01/2016, End: 12/31/2016; Term: 12 months**	No	1	1	EA	78,750.00	.00	78,750.00
3	Renewal: 6OHOTCK7M Hidalgo County Odyssey Hot Checks (per office) Maintenance and support **Maintenance Plan: ; Start: 01/01/2016, End: 12/31/2016; Term: 12 months**	No	1	1	EA	18,900.00	.00	18,900.00
4	Renewal: 6OPUBOD7SM Hidalgo County Odyssey Public Access: Online Documents Standard Maintenance and Support **Maintenance Plan: ; Start: 01/01/2016, End: 12/31/2016; Term: 12 months**	No	1	1	EA	3,704.40	.00	3,704.40
5	Renewal: 6OPUBAG7SM Hidalgo County Odyssey Public Access: Agency Secure Access Standard Maintenance and Support **Maintenance Plan: ; Start: 01/01/2016, End: 12/31/2016; Term: 12 months**	No	1	1	EA	1,620.68	.00	1,620.68
6	Renewal: 6O2CASEM Hidalgo County ODY Second Case Type Annual Maintenance **Maintenance: Start: 01/01/2016, End: 12/31/2016; Term: 12 months**	No	1	1	EA	77,175.00	.00	77,175.00
7	Renewal: 6ODBESIGANSM Document Management - eSignatures (including Merged to Tiff) Standard Annual Maintenance **Maintenance: Start: 01/01/2016, End: 12/31/2016; Term: 12 months**	No	1	1	EA	9,191.00	.00	9,191.00
8	Renewal: 6OCMEANSM eNotices Standard Annual Maintenance **Maintenance: Start: 01/01/2016, End: 12/31/2016; Term: 12 months**	No	1	1	EA	9,191.00	.00	9,191.00

tyler technologies

Empowering people who serve the public®

Remittance
Tyler Technologies, Inc.
(FEIN 75-2303920)
P.O. Box 203556
Dallas, TX 75320-3556

Questions
Tyler Technologies - Courts & Justice
Phone: 1-800-772-2260 Press 2, then 3
Fax: 1-866-673-3274
Email: ar@tylertech.com

THIS IS NOT AN INVOICE
PROFORMA

Company	Order No.	Date	Page
020	5013	06/10/2016	2 of 2

As part of the Amendment to the End User License Agreement between Tyler Technologies ("Tyler") and the County of Hidalgo, Texas ("End User"), approved on August 4, 2015, Tyler shall annually invoice End User for the maintenance and support service fees prior to the commencement of the maintenance and support term.

The above schedule shows the estimated payments to the Tyler for Software Maintenance, for Fiscal Year 2016. The schedules are updated at the beginning of each Fiscal Year and presented to the Commissioners Court for approval in accordance with the Agreement between Tyler and End User.

Executed this _____ day of _____, 20__.
COUNTY OF HIDALGO

Approved as to form:

Name:_____

Title: _____

Date: _____

Does not include any applicable taxes **Order Total:** 356,547.89

We would like to continue on the current maintenance plan

- ☐ Our Purchase Order is enclosed
- ☐ Our Purchase Order is _____.
- ☐ Purchase Order is not required to be invoiced

AN INVOICE WILL BE SENT AFTER CONFIRMATION OF ORDER

Comments:

AI-56112 **Purchasing Department** **12. E. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Yolanda Velasquez, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

Approval of "First Amendment" to Service Agreement C- 16-089-05-10 between Hidalgo County Health & Human Services Department and Ivan Melendez M.D. (Physician) for the provision of Physician Services (TB Clients) [as permitted under the terms of the agreement] with compliance with HB 1295.

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1100-444-00-240-005-0-339

FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

Funds available as of 09/02/16.

Attachments

Amendment-16-089

Form 1295

LEGALS-OKAY

Form Review

Inbox	Reviewed By	Date
Purchasing Department	Letty Saenz	09/02/2016 09:28 AM
Budget & Management	Veronica Ortiz	09/02/2016 09:33 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Yolanda Velasquez Started On: 08/29/2016 10:34 AM

Final Approval Date: 09/09/2016

STATE OF TEXAS §
§
COUNTY OF HIDALGO §

FIRST AMENDMENT TO
CONTRACT #C-16-089-05-10

This AMENDMENT to the CONTRACT is made this 06th day of September of 2016 by and between HIDALGO COUNTY, TEXAS (the "COUNTY") and IVAN MELENDEZ M.D. (the "PHYSICIAN").

WHEREAS, COUNTY and PHYSICIAN entered into a Short Term Contract on May 10, 2016 (the "CONTRACT"), that expires on September 20, 2016, in which the PHYSICIAN agreed to assist and support Hidalgo County Health & Human Services Department with a person to provide the services necessary to act as Physician for treating Tuberculosis ("TB") clients as well as other medical services as described in the CONTRACT; and

WHEREAS, the COUNTY now requires an amendment to extend the "term" of the CONTRACT due no regional physician hired thru Texas Department of State Health Services (DSHS) and Physician Services are still needed to assist and support the Hidalgo County Health & Human Services Department for treating TB clients as well as other medical services as described in the CONTRACT;

WHEREAS, the COUNTY AND PHYSICIAN now desire to amend the CONTRACT as hereinafter provided.

NOW THEREFORE, for and in consideration of the terms and provisions set forth herein, for good valuable consideration, the receipt and sufficiency of which are hereby acknowledged, COUNTY AND PHYSICIAN hereby agree to the following amendment to the CONTRACT:

1. The term of this CONTRACT shall be extended to December 31, 2016;

2. Except as modified herein, all terms and conditions of the CONTRACT, as amended, remain in full force and effect. COUNTY and PHYSICIAN ratifies and confirms the terms and provisions of the CONTRACT as amended herein.

EXECUTED and effective as of the day and year first written above.

HIDALGO COUNTY

By: _____
Hon. Ramon Garcia, County Judge

ATTEST:

By: _____
Hon. Arturo Guajardo, Jr. County Clerk

PHYSICIAN:

By: _____
Ivan Melendez M.D.

APPROVED AS TO FORM:
H. C. Office of Criminal District Attorney's
Ricardo Rodriguez, Jr.

By: _____
Victor M. Garza, Assistant District Attorney

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-106857

Date Filed:
08/31/2016

Date Acknowledged:
09/02/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Dr Ivan Melendez
Mission, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

County of Hidalgo

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

C-16-089-05-10- 1st Amendment
Medical Services

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

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C-16-089-05-10- 1st Amendment
Medical Services

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Dr. Ivan Melendez, this the 1st day of Sept., 2016, to certify which, witness my hand and seal of office.

IRMA CELIA CASTILLO
Notary Public
STATE OF TEXAS
My Comm. Exp. 11-10-2016

Signature of officer administering oath	Printed name of officer administering oath	Title of officer administering oath
Irma Celia Castillo	Irma Celia Castillo	Notary Public

Zimbra **yolanda.velasquez@co.hidalgo.tx.us**

Revised Physician Draft

From : Victor Garza <victor.garza@da.co.hidalgo.tx.us> Mon, Aug 29, 2016 04:34 PM

Subject : Revised Physician Draft 1 attachment

To : yolanda velasquez <yolanda.velasquez@co.hidalgo.tx.us>, Leticia. Saenz <leticia.saenz@co.hidalgo.tx.us>, Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us>, Josephine Ramirez <josephine.ramirez@da.co.hidalgo.tx.us>

Ms. Velasquez,

attached please find revised draft of amendment to Physicians Contract. Subject to the proposed revisions, our office approves as to the form of the amendment.

please let me know if you have any questions or concerns.

respectfully,

Victor M. Garza

Assistant District Attorney

Civil Division

Office of the Criminal District Attorney

Hidalgo County, Texas

100 East Cano Street

Edinburg, Texas 78539

(956) 292-7609 EXT. 8185

(956) 292-7619 FAX

victor.garza@da.co.hidalgo.tx.us

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victor.garza@da.co.hidalgo.tx.us <josephine.ramirez@co.hidalgo.tx.us> AND DELETE THE COMMUNICATION.*

AMENDMENT.revised.docx
26 KB

AI-56185 **Purchasing Department** **12. F. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Tanya Delira, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

Requesting the continuation of the preservation of historical record books volumes and the paper conservation with Kofile Preservation, Inc. thru our membership participation with TXMAS (Texas Multiple Awarded Schedule) 13-36010 in the amount of $124,999.88 for the Hidalgo County District Clerk's Office thru requisition 305228 .

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-1100-412-00-090-019-0-350

FUNDS AVAILABLE Y/N?: y **MATCHING FUNDS Y/N?:**

BUDGETARY IMPACT:

Attachments

Kofile Preservation

Form Review

Inbox	Reviewed By	Date
Purchasing Department	Letty Saenz	09/02/2016 09:28 AM
Budget & Management	Veronica Ortiz	09/02/2016 09:37 AM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Tanya Delira		Started On: 09/02/2016 08:36 AM
Final Approval Date: 09/09/2016		

Requisition

Req # 00305228

PO #

Date: 09/01/16

Bill To: x
x

Vendor : 404578
KOFILE PRESERVATION, INC.
6300 CEDAR SPRINGS ROAD
DALLAS TX 75235
FAX (214)442-6669

Ship To: DISTRICT CLERK
100 N. CLOSNER, 1ST FL
EDINBURG TX 78539

Contact: **STEPHANIE**
956-318-2200

Contract No:

Special Instructions:
REQ. NO: 090116-1

QUANTITY	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
		TXMAS-13-36010 DO NOT DUPLICATE ORDER		
327092.00	EACH	(IMGP004) Archival Imaging of Case File/Typescript 327,092 $0.33/Page $107,940.36	.33	107,940.36
75496.00	EACH	(IMGP004)Archival Imaging of Case File/Typescript-REDACTION & OCR ONLY	.12	9,059.52
8.00	EACH	(HOST001) Set Up Fee	1,000.00	8,000.00
		Account No	Encumbrance	
		6-1100-412-00-090-019-0-350	124,999.88	
			Freight	.00
			Total	124,999.88

Authorized By: _____

HON. LAURA HINOJOSA

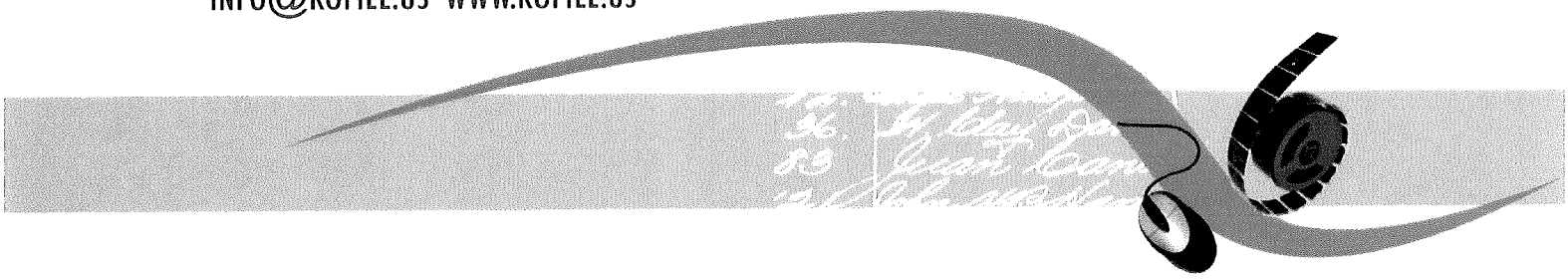
HIDALGO COUNTY DISTRICT CLERK

ARCHIVAL DIGITIZATION, INDEXING, & REDACTION OF CASE FILES

WITH AN OPTION FOR OCR

JULY 14, 2016

KOFILE TECHNOLOGIES, INC.
6300 CEDAR SPRINGS ROAD, DALLAS, TX 75235
P/ 214.351.4800 F/ 214.442.6669
INFO@KOFILE.US WWW.KOFILE.US



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CONTACT INFORMATION

KOFILE TECHNOLOGIES, INC.
6300 CEDAR SPRINGS ROAD, DALLAS, TX 75235
p/ 214.351.4800
f/ 214.442.6669

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c/ 713.204.5734
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c/ 210.286.1647
SCOTT.FAUSTO@KOFILE.US

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c/ 210.860.6906
CATHERINE/DROLET@KOFILE.US

MICHAEL COBB, EXECUTIVE SPONSOR
p/ 214.351.4800
MICHAEL.COBB@KOFILE.US

SUSANNA RECORDS, CONTRACT COORDINATOR (TXMAS)
p/ 214.351.4800
SUSANNA.RECORDS@KOFILE.US

BO BOWMAN
c/ 210.382.8121
BO.BOWMAN@KOFILE.US

I. EXECUTIVE SUMMARY

This quote addresses the archival digitization, indexing, redaction of confidential information, and optimization of Case Management Files for the Hidalgo County District Clerk's Office. All digitized files are formatted for Tyler Technologies, Inc.'s TSG Odyssey® Case Management System. There is also pricing for the project to include optical character recognition (OCR) for all images to assist search capabilities.

Kofile Technologies, Inc. (Kofile) is uniquely qualified to complete the Hidalgo County's modernization goals. Kofile has taken an innovative approach to this project to ensure a successful outcome. Please note that all image and document counts are a Good Faith Estimate and billing will occur on actual counts.

The options are priced at the maximum budget of $125,000.00, as provided by the County. The cost also accounts for an estimated $8,000.00 load fee from the system vendor, and the redaction costs for the 2015 Pilot Project (which addressed one pallet). This Pilot Project averaged 2,359 images per box—equivalent to 75,496 images or 32 boxes per pallet (exceeding the estimated 64,000 pages). Based on these numbers, this project will address:

- **OPTION I—Image, Index, System Conversion, & Redaction**
  - ***—398,983 pages of case files***
  - ***—redaction for the Pilot 75,496 images***
  - ***—5.29 pallets or 169.13 boxes***
- **OPTION II—Addition of OCR**
  - ***—338,531 pages of case files***
  - ***—redaction for the Pilot 75,496 images***
  - ***—4.48 pallets or 143.51 boxes***

DO IT ONCE, DO IT RIGHT, DO IT FOREVER

Kofile's services are not *'as-is'* or *'scan it & forget it.'* Kofile's basis for success is decades of experience, realistic solutions, and professional analysis. Many projects involve re-imaging what low-bid vendors have already imaged. Kofile invests in the best hardware and software. Technicians are trained to handle fragile documents. Images are the highest quality and are free of distortion and loss of information due to capture.

Archival digitization includes preservation image capture and processing (including custom image cleanup and enhancements) and optimization for access. Image output is multi-page full text-searchable PDF files or TIFF images. Images are indexed and blind-double keyed. Kofile will provide consistently keyed index fields to improve retrieval. Hidalgo County is assured of the following key differentiators with Kofile's indexing services:

- ***Kofile blind re-keys each field to maintain a 99.25% accuracy rate.***
- ***Our employees are key assets—our Data Entry Manager has 43 years of experience.***
- ***Kofile indexes at our Dallas facility, ensuring data confidentiality and security.***
- ***Kofile does not use third-parties to key—thus, errors and threats to data integrity are minimized.***

With headquarters located in Dallas, Tex., and a conversion facility in San Antonio, Tex., Kofile can work side-by-side with the District Clerk. Kofile's experience with the data conversion of archival documents is inferior to none. Kofile can address any concerns regarding the conservation and handling of fragile items, and superior image capture or microfilming. Kofile appreciates the opportunity to serve the Hidalgo County District Clerk.

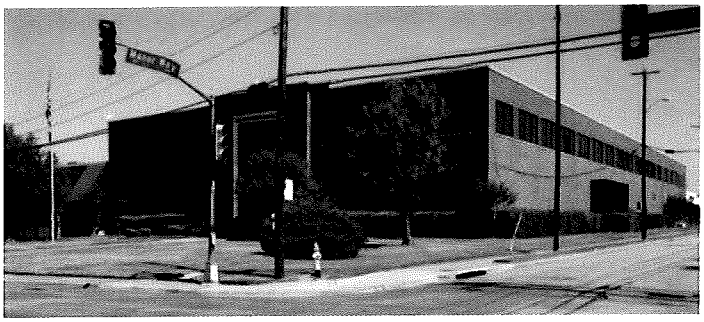
II. PROJECT EXECUTION

LOCATION OF WORK

Kofile's corporate headquarters is located at 6300 Cedar Springs Road in Dallas, Tex., *see pictured*. We also have a scanning laboratory located in San Antonio, Tex. Kofile possesses a history of responsibility, and it has invested in facilities with superior security to mitigate loss and destruction before they occur.

Our entire Dallas facility is contained within a fire-resistant brick and concrete building with structural steel support members and fire-rated walls, ceiling, and flooring. The Kofile facility is F5 Tornado Resistant according to an architectural assessment preformed by Tanner Consulting, January 2010.

Due to the sensitive nature of the data, Kofile provides multiple security measures. Kofile combines a 24/7 manned on-site security person with electronic surveillance. A state-of-the-art security system protects the entire building. In addition to the Motion Detector Security System, Kofile follows rigorous end-of-day closing and lock-down inspection protocol.



Hidalgo County is welcome to inspect any Kofile facility—with or without notice.

Regulated Facility Environment

Kofile has 24-hour temperature and relative humidity (RH) controls. All work areas for original Documents meet the Texas State Library and Archives Commission's recommended archival climate control standards. Kofile has four independent HVAC systems with programmable thermostats. Each vault has a separate and independent HVAC system. The HVAC for the work and storage areas are constantly set at 70°F. The level of relative humidity (RH) is maintained at a percentage in the mid-fifties.

The laboratories are windowless and centrally located to eliminate exposure to ultraviolet (UV) light. Kofile does not have any issues with pest control. The building is regularly maintained. Food and drinks are not permitted in the conservation areas by anyone, for any reason. Records being treated for mold or pests are quarantined in standard polyethylene bags, separate from other records, until remedial treatment is complete.

VAULTS

The Dallas facility has three vaults. Each vault is secured with Level 5 vault doors with a 4-Hour UL Rating of at least 350°F. Each vault has its own independent HVAC system, monitors for humidity and temperature, and controls for airborne particulates (monitored

by analog methods). Kofile actively monitors for micro-organic growth. Daily protocol requires that records removed from the vault for work must be in the custody of a technician at all times. When records are not undergoing treatment, they are immediately returned to the vault area.

Kofile provides storage services for microfilm, microfiche, and other types of data in its Media Vault. Kofile randomly performs spot tests to safeguard against certain contaminations, such as Vinegar Syndrome, mold, mildew, and/or Redox on microfilm. Acetate Base Film is separated from Polyester Base Film and is stored in separate storage boxes to help eliminate film contamination, as Eastman Park Micrographics, Inc. (EPM) recommends.

Kofile can retrieve any part of the microfilm/data and transmit the requested microfilm/data to a customer electronically or through other means. The client owns all of the stored microfilm/data, and Kofile will not sell or distribute the microfilm/data in any way.

SYSTEM SECURITY

Kofile works in a secured, directory-based environment. Kofile employees are subjected to background checks and extensive interviews. Before they are allowed to work with confidential records, technicians must graduate a series of work-effort tiers.

Our operator terminals are configured to ensure that no data can leave the facility. Any employee who works on a project is issued a username and password to access images. Rights are assigned to individual images as "read only." Only approved employees have the passwords to change image permissions. Therefore, no one can delete or modify images without authorization. All activity of this nature is logged.

Kofile establishes positive control over each item. Our SQL imaging database maintains a complete audit trail throughout each step for inventory control. We have managed numerous projects and have not lost any media or source files. Irreplaceable roll film, aperture cards, cartridges, paper files, charts, maps, and microfiche are all handled in this manner, without loss.

Kofile's server architectures allow redundancy of data operations in multiple locations. Data is regularly backed up to allow services to resume without interruption. Scanned information is captured on local workstations and processed in batches. After capture, batches are stored on centralized servers. Index servers are also backed up. After indexing, data is batch processed on central servers. These are backed up nightly, and the entire group of information is stored on archive servers. These data sets are moved to tape with multiple copies maintained offsite and within the vault noted previously. A backup implementation and rotation schedule is provided upon request.

PRODUCTION TRACKING SYSTEM (PTS)

An integral part of project management relates to the cataloguing of incoming files and tracking. Kofile uses its Production Tracking System (PTS) capability to produce unique IDs for each control unit. PTS provides staff with the tools necessary to establish positive control of the project and to manage the inventory of images, boxes, and microfilm continuously. Kofile employees can track the individual status of each document traveling through our system. PTS is also used for audit tracking purposes for each employee.

SERVICE DELIVERY

Trained personnel handle documents with the utmost care. For projects with large inventories, records are transported in our secure 18-foot truck. The cargo is held in a climate-controlled environment. This vehicle boasts a 4,000 lb. lift gate, air suspension, and air brakes. This truck is also equipped with extra security features, including back-up cameras and an anti-lock braking system. Executives monitor location, warning signals, and environmental conditions during transport.

TURNAROUND

The turnaround time for this project will be a mutual agreement between Kofile and Hidalgo County depending on the volume (number of boxes) for this project. A typical turnaround for a project of 1,000 boxes is four months—from box pick up to product delivery. Delivery and drop off times are pre-arranged.

INFORMATION REQUESTS

"Hot Shots," or Hidalgo County information requests, are available via fax or email. Upon receipt of a Hot Shot, Kofile will flag the requested record and verify inventory control, pull supporting paperwork, and email/fax a response to the requester or alternate. The turnaround time for Hot Shots will meet or exceed the District Clerk's requirements.

III. PROJECT METHODOLOGY

Imaging a document creates an electronic representation of the original. This process is not meant to replace the archival record, but to aid in its preservation. The image serves as a reference tool and is a back-up if the original is damaged or destroyed.

PROJECT GOALS

- ✓ *Modernize & upgrade office systems*
- ✓ *Eliminate or reduce manual lookups & searches*
- ✓ *Expedite searches with more records available for electronic retrieval*
- ✓ *Progress towards a paperless office*
- ✓ *Protect original records by reducing daily use*
- ✓ *Reclaim space in the public records area*

IMAGING OVERVIEW

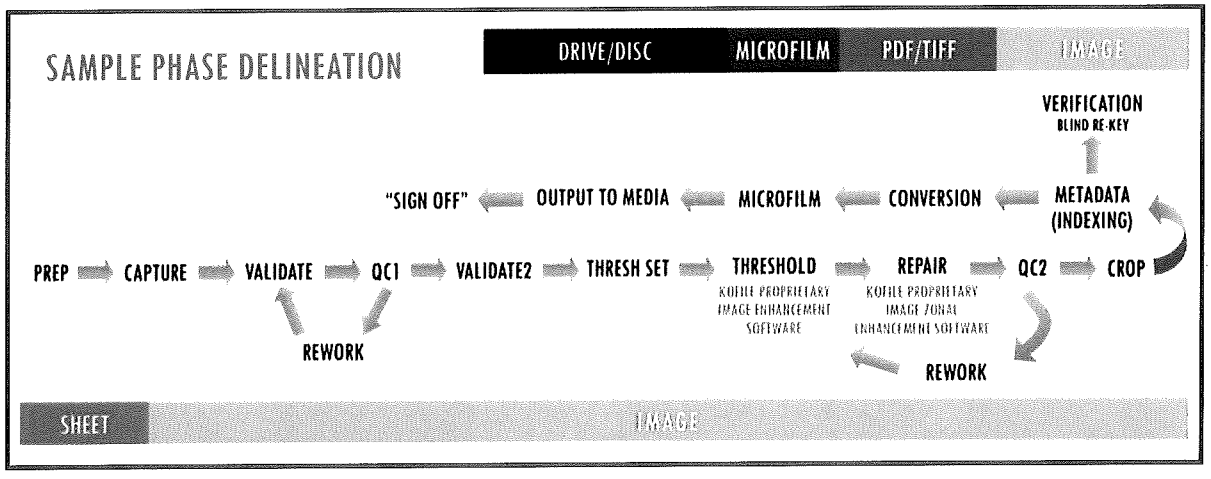
Domain specific knowledge is necessary for this project. A vendor that does not understand permanent asset collections may address the Hidalgo County files as disposable documents. Kofile understands that these are not disposable records, and we will maintain file order and identification.

Kofile always defaults to U.S. National Archives and Records Administration (NARA) technical guidelines for digitization. Upon request, Kofile stores an electronic security back up of all images in case of loss, damage, or destruction by fire or natural disaster.

IMAGE CAPTURE

Operators observe each page during capture. For faint or illegible pages, the operator marks the page, readjusts the scanner, and employs contrast tools. If unsuccessful, the operator indicates and inserts a review form for the quality assurance team to assess. The page is treated with a "Best Possible Image Indicator" or further enhancements. Images are captured at a minimum of 300 dpi at 256 bi-tonal or gray levels. This ensures the highest image quality for documents with poor contrast and difficult-to-read information. Images accumulate as Group IV bi-tonal images in a standard TIFF or PDF format. Images are optimized and scaled for system output.

Please see the following page for a Typical Conversion Plan for Case File projects.



TYPICAL CONVERSION PLAN FOR CASE FILES

NO.	TASK	ASSIGN	START /END	STATUS	COM-MENT
1.0	SCOPE OF WORK & QUOTE				
1.1	Develop scope of project i.e. budget, date ranges, case range.	County & Kofile			
1.2	Sign, edit, & return executed quote or contract to Kofile.	County			
1.3	Issue Purchase Order per TXMAS Contract and report purchase in TxSmartBuy.	County			
2.0	BOX PICK UP FROM STORAGE SITE				
2.1	Export database of Case Files in a pipe delimitated format, if applicable.	County IT			
2.2	Create manifest for Box Pick (a listing of case files per box).	Kofile			
2.3	Box Pick up from Client site(s).	Kofile			
2.4	Repeat Items 2.2 - 2.4 until scope of project (Item 1.1 pick up).	County & Kofile			
3.0	KOFILE PRODUCTION TASKS				
3.1	Inventory receivables and verify receipt.	Kofile			
3.2	Document Prep *(e.g. remove clips & staples, tape receipts to black pages, position envelopes for scan. May require copying case file folder for inclusion.*	Kofile			
3.3	Scan at 300 dpi at 256 gray levels with image enhancement to include deskew, despeckle, character repair, & zonal processing.	Kofile			
3.4	Quality Assurance (QA) Tasks include a visual examination of each image & comparison of image to paper. Compare Index data to database (Item 2.1) to match data.	Kofile			
4.0	DELIVERY OF IMAGES FOR IMPORT				
4.1	Provide media (CD, DVD, hard drive) for image & metadata delivery—includes case count, multi-page PDF files, & metadata.	Kofile			
4.2	Import images & metadata, if applicable. Verify that case count & other info matches quantity provided by Kofile.	County IT			
4.3	For imports with exceptions, provide Kofile with a list of exceptions for reimport.	County IT			
4.4	Verify users can access newly imported images & metadata.	County IT			
4.5	Back up Document Repository with newly imported images & other databases that may require a backup.	County IT			
5.0	COUNTY QUALITY ASSURANCE (QA) REVIEW				
5.1	County to complete a QA delivered Files.	County			
5.2	County to provide Kofile with an exception list of any issues.	County			
6.0	RETURN OF DOCUMENTS				
6.1	Documents return for storage.	Kofile			
7.0	MISCELLANEOUS				
7.1	Invoice monthly for images delivered to the County.	Kofile			

IMAGE PROCESSING & ENHANCEMENT

IMAGE PERFECT is Kofile's proprietary software. It ensures the optimum image quality. When documents vary in size and density, this custom programming ensures uniform images. It provides proprietary algorithms to achieve high image quality. Algorithms are critical for capturing different densities and quality levels in a collection.

This proprietary software is a digital SLR-based system. Kofile utilizes the Microsoft SQL database as the underpinning for the production systems. The software also allows operators to build and edit image processing scripts interactively. The image processing scripts can be saved for batch processing. It also has progress tracking capabilities and can identify exceptions. Supervisors correct problems quickly and efficiently. This software automatically detects and compensates for a scanner's variances or for variances from multiple scanners. The Assured Image delivers consistent, high-quality output.

IMAGE PERFECT uses custom image clean up and enhancements such as deskew, despeckle, character repair, and zonal processing. Kofile maintains 100% document integrity and image control with exclusive Image Locking capabilities. The processing procedures will not allow for information from rescanned pages to cut and paste accidentally into the incorrect page.

During the image repair process, *IMAGE PERFECT* allows repair of the currently displayed

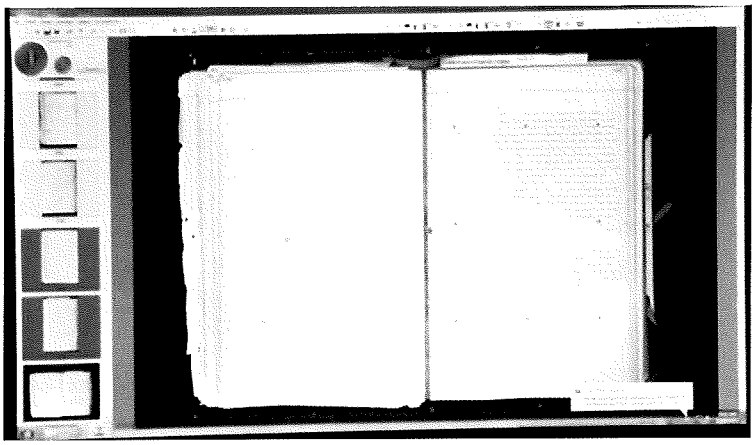
The article implies that partial document destruction is normal. This is unacceptable and contrary to any preservation standard. Kofile has the experience and expertise to handle fragile documents and address the physical preservation of the source document.

Source: Higgins, Jessie. "Recorder's Office Preserving Oldest County Records by Digitizing Them: Some Century-Old Pages Crumble When Touched." Courier Press, August 21, 2013 <www.courierpress.com/news/local-news/digitizing-historical-records> and <www.courierpress.com/news/local-news/county-digitizes-century-old-records>.

image without rescanning. This eliminates the need to rescan additional images that could compromise image integrity. Images are zonal enhanced to improve readability.

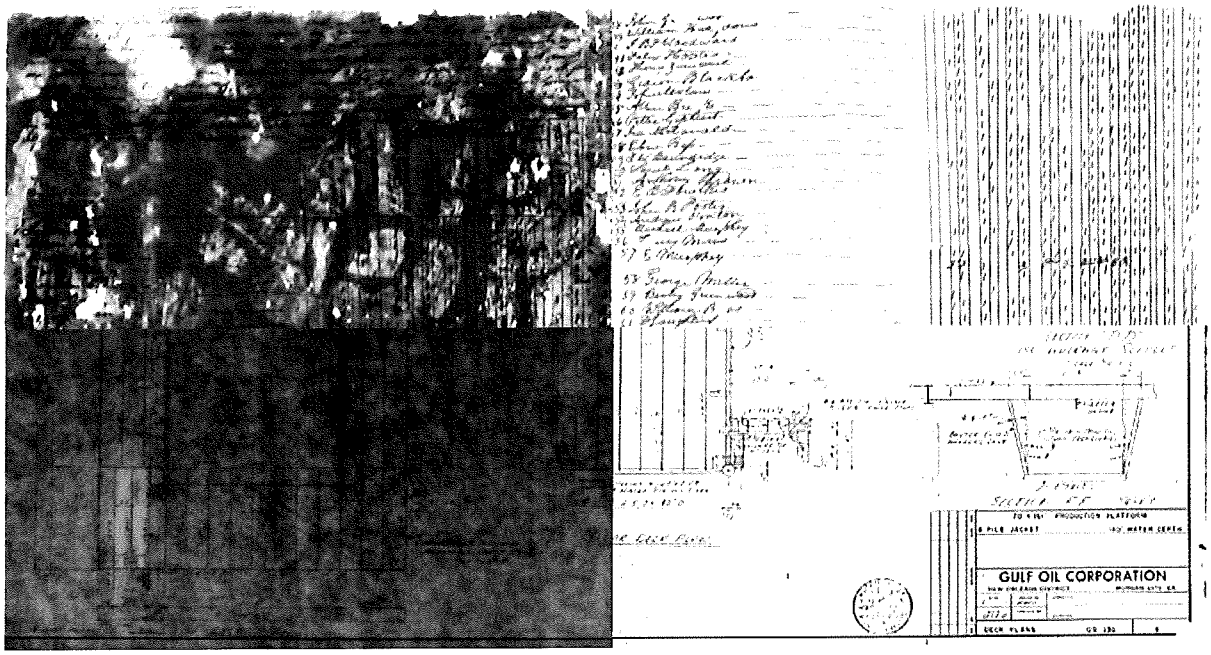
Quality Targets (pictured) establish the baseline digital capture quality of the scanner during scanning. Therefore, Kofile can measure the digitization physics at the time of capture. *IMAGE PERFECT* measures each image at a minimum for:

- Target dpi
- Target Tone scale and correction
- Color Management
- Brightness/Contrast Correction
- Gamma Adjustment
- White Balancing
- Page Orientation
- Exposure uniformity
- Color reproduction data



Quality Targets permit operators to view image quality at the time of the scan. Images, even those scanned on different devices, are "normalized" as if from the same scanner. Rather than using ad-hoc algorithms and tricks, this software measures image quality and propagates this data through the imaging chain. The Quality Targets serve as the foundation for our quality assurance analysis.

Annotations are supported to allow the addition of Name, Book Type, Volume, and Page on the image. Image quality metadata is captured as part of the image header along with a secured digital signature that certifies the fidelity and integrity of every image scanned.



Examples of imaging before (L) and after (R) image cleanup and enhancements.

QUALITY CONTROL (QC)

Quality control (QC) is a key element. QC ensures that all images are certified. **Kofile sight-checks each and every image**. Kofile's quality assurance involves three major thresholds for 100% review inspection: during preparation, scanning, and post scanning. Then, the process involves a statistical, random, batch-based review of 8% of all work before delivery. Each page is checked to ensure there are no missing pages, double feeds, and to account for "A" pages (which may have been added to the original book).

ARCHIVAL INDEXING

Data integrity is essential. Kofile's goal is to provide consistently keyed fields to improve document retrieval and build a dependable, searchable database for staff and the public. Proprietary indexing software and keying procedures provides proven 99.25% accuracy.

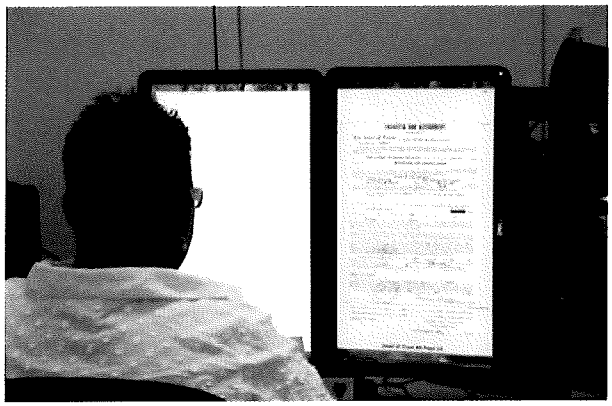
Our Data Entry Manager, Wanda Gomez, has over 43 years of experience. She excels at placing the customer's needs first, and her expertise is invaluable.

Before indexing commences, Kofile conducts a comprehensive assessment of the Office's indexing specifications. This allows for accurate and consistent indexes to guarantee quick user searches. The assessment includes documenting established methods of indexing specific instruments, clarifying terminology, and determining the standards used for entering names, dates, and other required basic information. This analysis produces essential information to ensure the metadata's accuracy and integrity. Full consideration is given to all indexing situations, including:

- *differentiation between individual names & corporation names*
- *government departments & agencies*
- *alternate & alias names*
- *abbreviations, titles, & naming consistency (e.g., hyphens, nos., spaces, & suffixes*

Data Entry Procedures

Kofile performs key entry at least twice for every field. Following the initial field key entry, the record displays to a second technician. This individual also keys the field (also termed a "blind re-key"). The software compares the entries. If they do not match, the record is sent to a supervisor. In quality control (QC), managers and supervisors internally research problematic processes. If County input is required, Kofile will contact the District Clerk directly. Client involvement demonstrates Kofile's pride in building successful relationships.



This supervisor identifies the problem with the field entry and determines if it is a one-time keying error or a prevailing issue. The supervisor decides if a new keying standard is needed. The record is then sent to another technician and keyed again. **With this methodology, each field is blind-keyed three times.**

REDACTION

Per the County's request, Kofile will perform redaction on the following fields:

- *Social Security Number*
- *Driver's License Number*
- *Date of Birth*
- *Bank Account Number*

OPTICAL CHARACTER RECOGNITION (OCR)

OCR processing of all of the project's typescript (typed) images. Following OCR, these images will allow for full text searches—-not just the indexed fields. Output file is multipage full text searchable PDF file (one file per case).

TSG ODYSSEY® CONVERSION

With increasing demand for digital access to court records, many Texas counties turn to Tyler Technologies, Inc.'s TSG Odyssey® Case Management. Despite Odyssey®'s convenience, users struggle to maximize its potential. Few companies properly format paper case files for Odyssey®. Kofile has imaged, indexed, and imported multiple Odyssey® projects.

Kofile worked closely with Odyssey®'s TSG development and conversion teams to create a customized import experience. Our specialized process and application simplifies this conversion process for Tyler Technologies, Inc. TSG personnel.

BENEFITS OF ODYSSEY® + KOFILE

- *Faster import of images & indexes into Odyssey®.*
- *Eliminate conversion errors due to improper formats.*
- *Reduce hours & invoices for Tyler's technical assistance.*
- *Assistance with sign-off & acceptance testing.*

Clerks are not required to check thousands of case files alone.

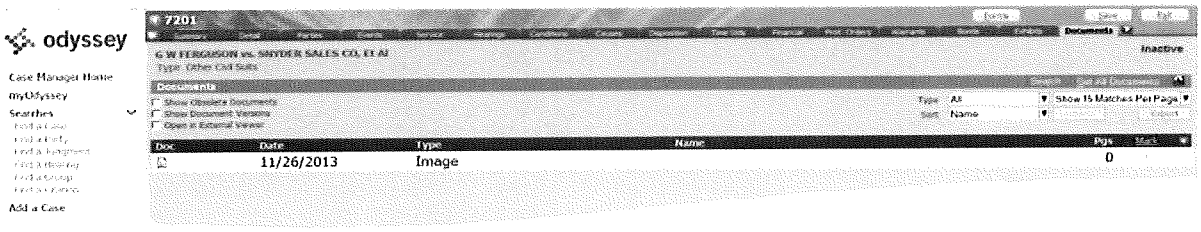
Kofile's standard process for importing case files incorporates Odyssey®'s pre-existing indexes, if available. If no index exists, Kofile indexes each case file per the project-specific fields. Kofile merges the index with the new image, and imports the case into Odyssey®. Imaging an entire case maximizes the number of complete case files imaged to reduce the number of hard copies staff retrieve. Eliminating the need to access and re-shelve case files liberates County staff to perform other tasks.

Importation Process

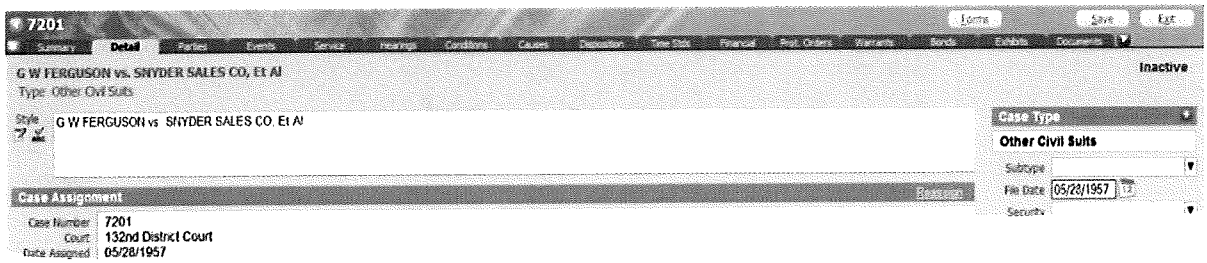
Kofile's process for importing case files differs when the files have an existing index in Odyssey® . The process for importing case files with an pre-existing index in Odyssey® includes the export of the existing index, matching it with the appropriate case files, importing images, and merging images with the existing index. The process for importing case files that do not have an existing index in the Odyssey® case management system differs in that The new indexes and corresponding images are imported into Odyssey® and displayed as "Historical Conversion" or "Archived Images" in the "Documents" tab in the Odyssey® system.

Odyssey® Screen Shots (PLEASE NOTE THAT IMAGES OF THE ODYSSEY® SYSTEM ARE THE PROPERTY OF TYLER TECHNOLOGIES, INC. AND ARE USED FOR INFORMATION PURPOSES.)

DOCUMENT TAB



DETAIL TAB



Imaging & Individual Events

While Kofile can load images to custom areas within Odyssey® (including loading individual events into existing or new indexes), attaching images to individual events is not recommended. Per the former, each imaged document in a case requires separation from the case, and indexing by event type or document type and date. Often the date and document type does not match the pre-existing index. Thus, technicians must manually attach mismatched indexes and images. This results in additional costs that instead could be allocated to more detailed plaintiff/defendant indexing or imaging.

Kofile's references can attest to the convenience of an entire case imaged under a single line in the "Documents" tab. This maximizes the number of complete case files imaged. Whereas, attaching a smaller percentage of case file images to individual events requires a constant need to reference the original documents. Eliminating the need to access and re-shelve case files liberates employees to perform other tasks.

IV. PROPOSAL PRICING

This project is presented via TXMAS Contract No. **TXMAS-13-36010** per Hidalgo County's cooperative purchasing membership. **Please reference this contract number on the resulting purchase order.** Without a signed Agreement, prices are good for 90 days from the date of this proposal. Upon approval, pricing remains firm for the contract term. Please note that pricing is based on a Good Faith Estimate of image and document counts. Billing will occur on actual counts based upon the unit pricing presented herein; not to exceed the amount of the County's Purchase Order.

HIDALGO COUNTY DISTRICT CLERK ARCHIVAL DIGITIZATION OF CASE FILES									
OPTION	RECORDS SERIES	FORMAT	APPROX. PALLETS	APPROX. BOXES	IMAGE COUNT	LEVEL OF SERVICE	UNIT PRICE	LINE ITEM TOTAL	OPTION TOTAL COST
OPTION I: IMAGE, INDEX, SYSTEM CONVERSION, & REDACTION									
Opt. I	Case File	*Flat/Typescript*	5.29	169.13	398,983	IM/ID/RD	$0.28	$111,715.24	$124,999.96
	Pilot Project		1	32	75,496	RD	$0.07	$5,284.72	
						LOAD FEE*		$8,000.00	
OPTION II: IMAGE, INDEX, SYSTEM CONVERSION, REDACTION, OCR									
Opt. II	Case File	*Flat/Typescript*	4.33	138.66	327,092	IM/ID/RD/OCR	$0.33	$107,940.36	$124,999.88
	Pilot Project		1	32	75,496	RD/OCR	$0.12	$9,059.52	
						LOAD FEE*		$8,000.00	

**The TSG Odyssey® Case Management System load fee is an estimated cost. If the actual load cost be less than estimated, the difference (less the applicable TXMAS fee of 1.5228%) will be applied to the project to address additional images.*

(IM) Archival Imaging
- *Document Prep and De-Prep.*
- *Image capture, processing, and zonal enhancements: Polarity Reversal, Deskew, and Despeckle.*
- *Page Validation.*
- *Case File images are grouped together and indexed to form documents by case number. Output to multipage PDF or TIFF image.*
- *Multi-level QC (data and image).*

(ID) Archival Indexing
- *Key Case Type, Case No., first Plaintiff & Defendant, and File Date.*

(RD) Redaction
- *Redact SSN, DOB, Driver's License No., and Bank Account No.*

(OCR) Optical Character Recognition
- *Enable full text search within each case file.*

Other Included Services:
- *Intermediate Conversion Database for importing upon indexing completion.*
- *Images/metadata electronic off-site security backup.*

COUNTY ACCEPTANCE ❒ OPTION I ❒ OPTION II

_____ _____

Signature of Authorized County Official/Title *Date*

TXMAS BILLING

The following TXMAS line items are used to bill the project as applicable:

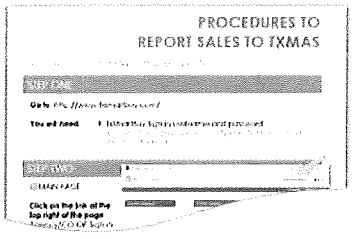
ITEM NO.	NIGP	DESCRIPTION	QTY.	UNIT PRICE	LINE ITEM
OPTION I					
IMGP004	92030	Archival Imaging of Case File/Typescript	398,983	$0.28/Page	$111,715.24
IMGP004	92030	Archival Imaging of Case File/Typescript—REDACTION ONLY	75,496	$0.07/Page	$5,284.72
HOST001	92003	Set Up Fee	8	$1,000.00/Each	$8,000.00
OPTION II					
IMGP004	92030	Archival Imaging of Case File/Typescript	327,092	$0.33/Page	$107,940.36
IMGP004	92030	Archival Imaging of Case File/Typescript—REDACTION & OCR ONLY	75,496	$0.12/Page	$9,059.52
HOST001	92003	Set Up Fee	8	$1,000.00/Each	$8,000.00

TXMAS Reporting Requirements

Upon purchase of a TXMAS project, the County reports the order on the TxSmartBuy System <www.txsmartbuy.com/>. *Hidalgo County's CO-OP Listing per the Texas Comptroller of Public Accounts' (CPA) website:*

CO-OP #	C1080
Contact	Martha L. Salazar, martha.salazar@co.hidalgo.tx.us
Expiration	31-MAR-2017

Kofile has prepared instructions to assist Counties in the reporting process. Please review these instructions as attached *(excerpt as seen to the right).*


PROCEDURES TO
REPORT SALES TO TXMAS

V. KEY PERSONNEL

True pioneers in micrographics, imaging, re-creation, and data entry solutions for government records manage Kofile's projects. Our projects often continue in multiple phases over many years and administrations. The combination of our experienced imaging team and technology competence and our status as a software developer augments our capability to enhance image processing.

SCOTT FAUSTO

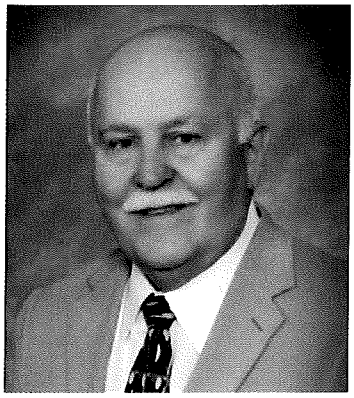
Fausto has over 20 years of experience in sales and project management for the county recording offices and the private sector. His experience managing county recording systems gives him unique insight into the needs of local government. Fausto specializes in analyzing county government workflows and developing cost-effective recording system solutions tailored to the needs of each client. Fausto gives educational presentations and software demonstrations, and he can assist in training and instruction during implementation processes. Fausto's diverse knowledge of records management and workflow analysis and best practice implementation make him a crucial member of the Kofile team.

CATHERINE 'CATHY' DROLET

Drolet has been in the document management industry since 2006, and she is a Certified Digital Imaging Architect (CDIA+). Drolet has experience in business development, account management and project management for the state and local public sector. She helps clients manage their procurements with state contracts. Drolet's expertise is in converting high volumes of critical papers and film in a confidential environment utilizing a tightly managed and secure approach.

EUGENE SISNEROS

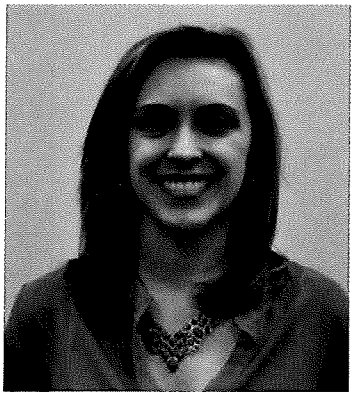
Sisneros has been in the land title recording and records management industry for over 22 years. He was involved in the early stages of eRecording in both Colorado and the national arena. He has consulted on records management across the country for the private sector and government. Sisneros gives educational and informational lectures on government trends and industry services. His knowledge of the records management business and the creation and implementation of standards and workflow makes Sisneros an indispensable asset to Kofile.



BO BOWMAN

Bowman manages the high volume production facilities at Kofile. Bo has over 25 years of experience in the document management industry in imaging technology, including new and legacy platforms and software and leading edge technologies. Bowman has managed state, county and city government projects for over 15 years. Bowman's technical background in county and state experience gives him a unique view into how our clients use government records.

MANDY WIGGINS



Wiggins manages the relationship between the imaging and indexing production groups. She has been at the forefront of software operation and implementation for over nine years serving as an expert in document imaging and troubleshooting database issues. Wiggins's has spent most of her career coordinating business objectives with client expectations. Her technical background and proficiency in customer service provide county clients and their customers with a unique, client-focused approach to enhancing the ease of using government records.

WANDA GOMEZ

As Data Entry Supervisor, Gomez brings a vast amount of experience to Kofile. Her career in the field of land records management spans over 43 years. Her expertise extends into Municipal/Government and Land Title businesses. Wanda has overseen the indexing of both current and historical records for Municipal/Government Clerks. She has been instrumental in developing the indexing standards used in the offices of many Clerks today. Her knowledge, reliability and pursuit of excellence make her an invaluable asset to our customers and organization.

PROCEDURES TO REPORT SALES TO TXMAS

The quote is entered into TxSmartBuy upon purchase.

STEP ONE

Go to: http://www.txsmartbuy.com/

You will need:

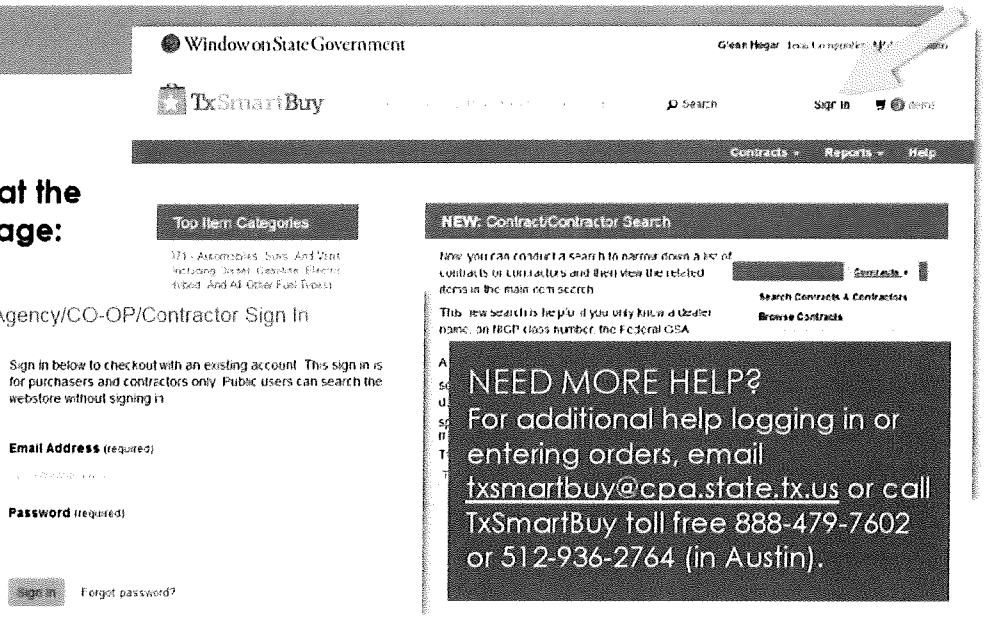
1. TxSmartBuy Sign in email address and password *(usually managed by Purchasing Dept. or Auditor—if you do not have yours, contact TxSmartBuy)*
2. Kofile's Quote

STEP TWO

@MAIN PAGE

Click on the link at the top right of the page: Sign in

Sign into the system



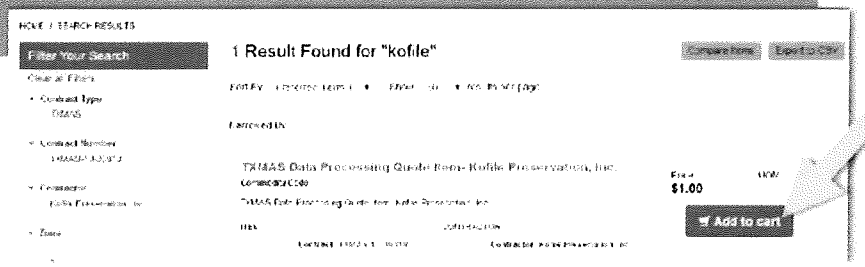
STEP THREE

Use the Search Bar at the top left of the page to enter: Kofile

STEP FOUR

@SEARCH RESULTS

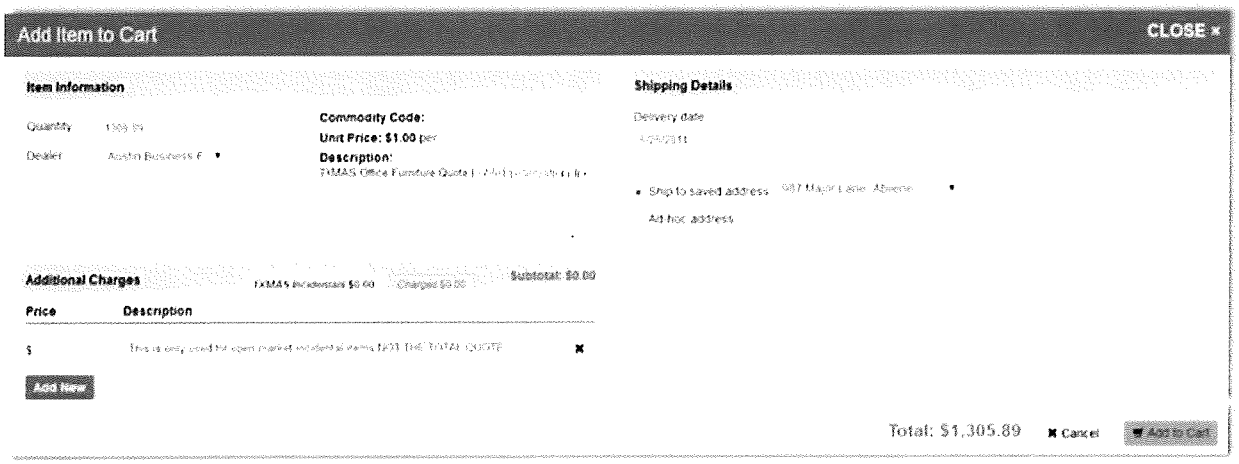
Click the blue button: Add to cart



KOFILE TECHNOLOGIES

STEP FIVE

@ADD ITEM TO CART



Complete the following prompts, *if applicable*:

- ☐ **Enter total quote <u>$ amount</u> as the QUANTITY:**
  If quote amount is $1,305.89, then enter $1,305.89 as the <u>item quantity</u>.
- ☐ If dealers are available, choose dealer from the pull down.
- ☐ ~~Enter the amount for non-Incidental fees as the quantity of the $1 item~~.
  (Kofile does not quote any non-Incidental fees).
- ☐ Add other charges using the 'Charges tab,' *if necessary.*
- ☐ Choose Delivery date.
- ☐ Choose Shipping Address.

Internal Tracking No.: Use the County-issued Purchase Order No.

Add to Cart.

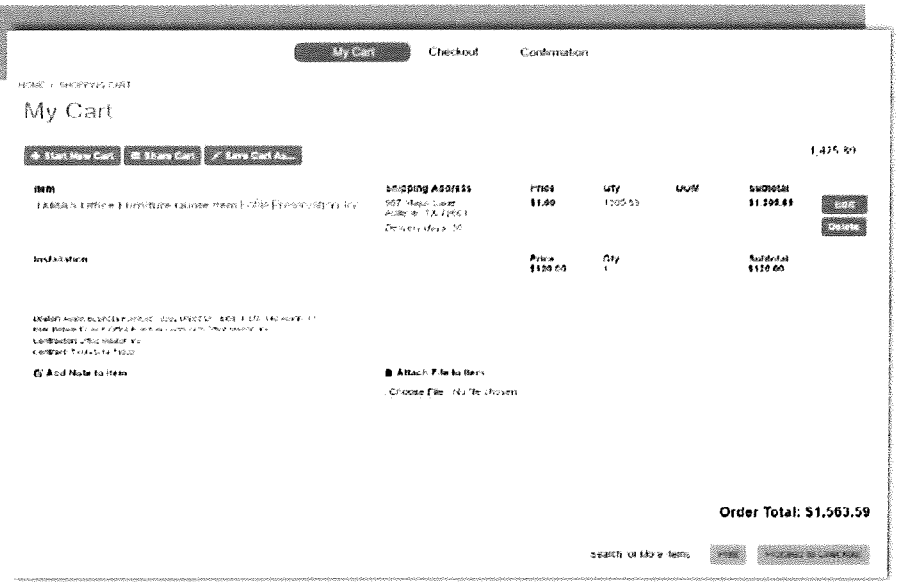
STEP SIX

@MY CART

Attach Kofile quote: Attach File to Item > Choose File

Type in the box 'Add Note to Item': See attached Quote #...

Proceed to checkout.



KOFILE TECHNOLOGIES

Window on State Government Glenn Hegar Texas Comptroller of Public Accounts
(http://www.window.state.tx.us/)
TxSmartBuy
(http://www.txsmartbuy.com)
Contracts Reports Help (/help/)

0 items

Contract Details: # TXMAS-13-36010

Search for items in this contract (/ex_search/false/contract_number/TXMAS~13~36010)

Number	TXMAS-13-36010
Description	Record Preservation
Category	TxSmartBuy
Type	TXMAS
Start Date	11/29/2012
End Date	9/19/2017
Fed	GS-03F-0169Y
Purchase Category Code (Agencies Only)	PCC X
Optional Renewal Terms	This Texas Multiple Award Schedule (TXMAS) contract is renewed on the date that the governmental entity that awarded the underlying contract exercises any renewal options. All State of Texas terms and conditions will continue and apply to all renewal periods by mutual agreement. The contractor has certified that the prices reflected in the contractor's catalog are the same as the prices contained in the most current modification to the underlying contract.

Zimbra **tanya.delira@co.hidalgo.tx.us**

Re: Kofile Proposal

From : Stephanie Palacios <stephanie@co.hidalgo.tx.us> Thu, Sep 01, 2016 11:43 AM

Subject : Re: Kofile Proposal

To : Tanya De Lira <tanya.delira@co.hidalgo.tx.us>

Good morning Ms. Tanya, we will be going with option 2.

From: "Tanya De Lira" <tanya.delira@co.hidalgo.tx.us>
To: "Stephanie Palacios" <stephanie@co.hidalgo.tx.us>
Sent: Thursday, September 1, 2016 9:43:51 AM
Subject: Kofile Proposal

Ms. Stephanie, I am currently working on the Kofile Proposal, however it does not specify what option you are going with.
Please advice.

Tanya De Lira

Hidalgo County Purchasing Department
2812 S. Business Hwy 281
Edinburg, Texas 78539
O 956 292 7000 x 4878
F 956 292 7612

From:
$0.47

incl: s

From 1 source

IT Data Conversion ServicesArchival Image Processing. Archival Imaging of Unbo und Positive/Typescript Record, Price Per Page

Mfr: KOFILE PRESERVATION. INC.

DISAST PURCH

ARCHIVAL IMAGE PROCESSING
IMGP004

From:
$0.38

incl: s

From 1 source

IT Data Conversion ServicesArchival Image Processing. Archival Imaging of Case File/Typescript Record, Price Per Page

Mfr: KOFILE PRESERVATION. INC.

DISAST PURCH

INDEXING
IND001

From:
$1.93

incl: s

From 1 source

IT Data Conversion ServicesIndexing. Archival Indexing of Vital Records/Typesc ript, Price Per Document

PRESERVATION. INC.

DISAST PURCH

DIGITAL ARCHIVE HOSTING
HOST001

From:
$1,925.44
incl: s
From 1 source

IT Data Conversion ServicesDigital Archive Hosting. Set Up Fee, Each

Mfr: KOFILE PRESERVATION. INC.

DISAST PURCH

MICROFILM SERVICES & PRODUCTS
MSP007

From:
$33.70
incl: s
From 1 source

IT Data Conversion ServicesMicrofilm Services & Products. Brown Toning Microfi lm16 MM x 100, Price Per Roll

Mfr: KOFILE PRESERVATION. INC.

DISAST PURCH

< Previous Page 1 | **2** | 3 Next Page >

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-107499

Date Filed:
09/01/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Kofile Technologies, Inc. (d.b.a. Kofile Preservation, Inc.)
Dallas, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Hidalgo County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
305228
Archival Digitization, Indexing, & Redaction of Case Files Option II with the Addition of OCR for the Hidalgo County District Clerk's Office, $124,999.88, TXMAS

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Oates, William D.	Dallas, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

SHERRY L STEVENS
Notary ID # 5008902
My Commission Expires
July 22, 2020

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said John D Woods, this the 1st day of September 20 16, to certify which, witness my hand and seal of office.

Signature of officer administering oath | Sherry L Stevens — Printed name of officer administering oath | Notary Public — Title of officer administering oath

AI-56183 **Purchasing Department** **12. G. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted By: Yvette Salinas,
PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

a. Presentation of scoring grid below (for the purposes of ranking by CC as qualified to continue process) of the responses received and evaluated in connection with RFP No. 2016-193-08-10-YSS Quality Claims Administration Services for Workers' Compensation, in order to proceed forward with the negotiation portion of the procurement process;

	Tristar Risk Management	1-2-1 Claims Inc.	Argus Claims Services, Inc.
Evaluator 1	98	93	*DNMS
Evaluator 2	98	94	*DNMS
Evaluator 3	98	91	*DNMS
Average Scvore	98	92.6	*DNMS
CC RANK			-

*Did Not Meet Specs-Proposal did not include Administration Services

b. Requesting authority for Purchasing Department to enter into negotiations with the number one (1) ranked proposer _____ for: Quality Claims Administration Services for Workers' Compensation.

BACKGROUND

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-2202-419-50-115-066-0-350

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

No budgetary impact at this time presentation of scoring grid only; funding will be identified when final negotiated contract is presented to commissioners' court for approval at a later date.

Attachments

back up 56183

Disclosure Forms

Form Review

Inbox	Reviewed By	Date
Purchasing Department	Letty Saenz	09/08/2016 11:33 AM
Budget & Management	Veronica Ortiz	09/08/2016 01:24 PM
Merlen P. Munoz	Merlen P. Munoz	09/08/2016 01:46 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Yvette Salinas		Started On: 09/01/2016 04:38 PM
Final Approval Date: 09/09/2016		

HIDALGO COUNTY PURCHASING DEPARTMENT
PROPOSAL ACCEPTANCE SHEET

DEPARTMENT NAME: HIDALGO COUNTY

RFP ACCEPTANCE DATE: AUGUST 10, 2016	**RFP ACCEPTANCE TIME: 9:30 A.M.**

DESCRIPTION OF RFB:
"QUALITY CLAIMS ADMINISTRATION SERVICES FOR WORKERS' COMPENSATION"

RFP NO: 2016-193-08-10-YSS

RFP	NAME OF COMPANY	ACKNOWLEDGMENT OF RECEIPT
1	**1-2-1 Claims**	✓
2	**TriStar Risk Management**	✓
3	**Argus Claims Services, Inc.**	✓
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

HIDALGO COUNTY PURCHASING DEPARTMENT
PARTICIPATING RESPONDENT'S LOG
REQUIREMENTS/RFP PACKETS

IBF-RFP-RFQ-RFI

RFP ACCEPTANCE DATE: **November 06, 2013** RFP ACCEPTANCE TIME: **9:30 A.M.**
DEPARTMENT/PROPOSAL DESCRIPTION: **"HIDALGO COUNTY-QUALITY CLAIMS ADMINSTRATOR SERVICES FOR WORKERS' COMPENSATION"**
RFP NO: **13-154-11-06-YSI**

NAME OF PROPOSER: COMPANY/FIRM & REPRESENTATIVE'S NAME	PROPOSAL REQUEST *VIA	SIGNATURE (IF APPLICABLE) OR INITIALS OF STAFF ADDRESSING MAIL OUT	DATE	PHYSICAL ADDRESS CITY-STATE-ZIP PHONE & FAX NO.S
1. TRISTAR Insurance Group Amy Orlando, Comm Mngr Jimmy Dyer	Email	Yvette Salinas	07-25-16	2540 Route 130 Suite 109 Cranbury, NJ 08512 609-495-0001 ext 3819 Amy.Orlando@tristargroup.net Jimmy.Dyer@tristargroup.net
2. Trinity Review Services Inc. Jonny Rogers, Dir of Operations	Email	Yvette Salinas	07-25-16	610 Uptown Blvd #2000 Cedar Hill, TX 75104 888-587-9062 johnnyr@trinityreviews.com
3. Argus Claims Services, Inc. Brenda Canterbury VP of Operations	Email	Yvette Salinas	07-25-16	811 S. Central Expressway, Suite 440 Richardson, TX 75080 214-459-2000 ext 1009 brendac@argusservices.net
4. 1-2-1 Claims, Inc. Michelle Villarreal, Pres	Email	Yvette Salinas	07-25-16	PO Box 2392 Boerne, TX 78006 877-411-4121 ext 201 mvillarreal@121claims.com pvillarreal@121claims.com\
5. Gulf South Risk Services, Inc. Jeri LeBlanc, V Pres	Email	Yvette Salinas	07-25-16	712 School St. Houma, LA 70360 985-868-7070 985-805-0415 jleblanc@gsrsinc.com
6. York Risk Services Group Ashley Waismann, Prop/Mrkt Sprt Mngr	Email	Yvette Salinas	07-25-16	333 City Blvd W Ste 1500 Orange, CA 92868 714-620-1349 Ashley.waismann@yorkrsg.com
7. Cannon Cochran Management Services, Inc Julie Saucedo	Email	Yvette Salinas	08-02-16	P O Box 802082 Dallas, TX 75380 972-419-0416 972-386-7908 x77777 281-736-9571 cell
8. Montalvo Insurance Jessie Villarreal	Email	Yvette Salinas	08-02-16	208 S Texas Blvd Weslaco, TX 78596 956-698-5521 jessie@montalvoinsurance.com
9. Onvia Jacqueline Sessa	Email	Yvette Salinas	08-03-16	509 Olive Way Seattle, WA 98101 206-373-9150 jessa@onvia.com
10.				

***VIA: IN PERSON (IP) TELEPHONE REQUEST (TR) PROPOSER LIST MAIL OUT (PLM)**

NO CONFLICT DISCLOSURE FORM

Name of Government Officer/Employee: Flora Vazquez

Title/Position: Employee Benefits Director

Contract for Goods/Services: Quality Claims Administrator for Workers' Compensation

Name of Vendors contracting with OR seeking to contract with Hidalgo County:

1. Tristar Risk Management
2. 1-2-1 Claims Inc.
3. Argus Claims Services, Inc.
4. _____

In my review, grading, selection or approval of the above identified vendors, I hereby affirm that I have no conflicts to disclose (employment/business, family or gifts exceeding $100) in connection with the above identified vendor(s) as required by section 176 of the Texas Local Government Code.

Signed: Flora Vazquez

Date: 08/26/2016

NO CONFLICT DISCLOSURE FORM

Name of Government Officer/Employee: Ray Salazar

Title/Position: Director – Strategic Planning DBM

Contract for Goods/Services: Quality Claims Administrator for Workers' Compensation

Name of Vendors contracting with OR seeking to contract with Hidalgo County:

1. Tristar Risk Management
2. 1-2-1 Claims Inc.
3. Argus Claims Services
4. _____

In my review, grading, selection or approval of the above identified vendors, I hereby affirm that I have no conflicts to disclose (employment/business, family or gifts exceeding $100) in connection with the above identified vendor(s) as required by section 176 of the Texas Local Government Code.

Signed: Ray Sal

Date: 9/1/14

NO CONFLICT DISCLOSURE FORM

Name of Government Officer/Employee: Raul Silguero, Jr.

Title/Position: County Operations Admin.

Contract for Goods/Services: Quality Claims Administrator for Workers' Compensation

Name of Vendors contracting with OR seeking to contract with Hidalgo County:

1. TRISTAR RISK MANAGEMENT
2. 1-2-1 Claims Inc.
3. Argus Claims Services
4. _____

In my review, grading, selection or approval of the above identified vendors, I hereby affirm that I have no conflicts to disclose (employment/business, family or gifts exceeding $100) in connection with the above identified vendor(s) as required by section 176 of the Texas Local Government Code.

Signed: _____ Date: 8/29/2016

AI-56206 **Purchasing Department** **12. H. 1.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Marty Salazar, PURCHASING DEPT.

Submitted By: Tanya Delira, PURCHASING DEPT.

Department: PURCHASING DEPT.

Information

CAPTION

a. Requesting exemption from competitive bidding requirements under Tx. L GC, Ch. 262, Sec.024(a)(3) for the purchase of a CAT generator system upgrade.

b. Approval to purchase a CAT Power Generator System Upgrade located at the Hidalgo County Sheriff's Office as proposed by exempted vendor HOLT CO d/b/a HOLT TRUCK CENTER in the amount of $124,918.45.

BACKGROUND

An onsite assessment was conducted on 5/27/2016 through PO#742862 by Holt-CAT Truck Center and found the following system components in-operable: "ISO switchgear touch screen panel", "Power Inverter", and the "TSP 201 Module". In addition, the parts for the existing Transfer Switch and the Components mentioned herein are no longer available which is a contributing factor for the system upgrade requirement and for the state of emergency.

Tx. L GC, Ch. 262, Sec.024(a)(3) - "an item necessary because of unforeseen damage to public property", and (7) -"an item that can be obtained from only one source, including" - (B) films, manuscripts, or books -(D) "captive replacement parts or components for equipment;" and (11) "vehicle and equipment repairs"

Req# 304769 - purchase to include parts, labor, software and travel as an emergency purchase to avoid a power outage and to secure the security and safety of the general population at this facility.

Fiscal Impact

FISCAL YEAR: 2016 **ACCT. #:** 6-2102-423-21-280-015-0-751

FUNDS AVAILABLE Y/N?: Y **MATCHING FUNDS Y/N?:** N

BUDGETARY IMPACT:

Funds available under Req#304769.

Attachments

Holt Co
HB1295 Compliance

Form Review

Inbox	Reviewed By	Date
Purchasing Department	Letty Saenz	09/02/2016 03:18 PM
Budget & Management	Veronica Ortiz	09/02/2016 03:22 PM
Merlen P. Munoz	Merlen P. Munoz	09/06/2016 11:09 AM
Purchasing Department	Letty Saenz	09/08/2016 04:06 PM
Budget & Management	Veronica Ortiz	09/08/2016 04:11 PM
Merlen P. Munoz	Merlen P. Munoz	09/08/2016 05:24 PM
Merlen P. Munoz	Merlen P. Munoz	09/08/2016 05:43 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Tanya Delira		Started On: 09/02/2016 01:26 PM
Final Approval Date: 09/09/2016		

Requisition
HIDALGO COUNTY JAIL

Req # 00304769
PO #
Date: 08/25/16

Bill To: x
x

Vendor : 94366
BD HOLT CO
D/B/A HOLT TRUCK CENTER
P.O. BOX 911975
DALLAS TX 75391-1975
FAX (361)854-3367

Ship To: HIDALGO COUNTY JAIL
701 EL CIBOLO RD
EDINBURG Tx 78539

Contact: RQUINTANIHLA
956-393-6023

Contract No:

Special Instructions:

QUANTITY	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
		EMERGENCY CAT PWR GENERATOR CONTROLS / COMPONENTS UPGRADE / REPAIRS NECESSARY TO AVOID A POWER OUTAGE DO NOT DUPLICATE ORDER		
1.00	LOT	PLC AND HMI CONTROLS MODERNIZATION UPGRADE AT THE HIDALGO COUNTY ADULT DETENTION CENTER (INCLUDES ENGINE COMMS) (FS REMEDIAL) IN HOUSE PRODUCTION (PROGRAMMING, ENGINEERING, HMI, CAD, LOGISTICS) FIXED RATE PRICE FOR TRAVEL, LABOR AND MATERIALS DESCRIBED IN THIS ESTIMATE. ALL WORK INCLUDES CAT SWITCHGEAR STANDARD AFTER-MARKET WARRANTY TERMS AND CONDITIONS. APPLICABLE TAXES, DUTIES AND FREIGHT ARE NOT INCLUDED AND WILL BE ADDED AT THE TIME OF INVOICE UNLESS OTHERWISE STATED. RETURNED PARTS ARE SUBJECT TO A RE-STOCKING FEE. ANY ADDITIONAL LABOR OR MATERIAL REQUIRED BUT NOT INCLUDED AS A RESULT OF CHANGE IN SCOPE WILL BE INVOICED AS ACCRUED. CANCELED ORDERS WILL BE INVOICED TO INCLUDE ANY MATERIAL RETURN FEES, NON-REFUNDABLE TRAVEL, AND SUBMITTAL LABOR IF APPLICABLE. BUY BOARD 424-13. GROUP 48 - PARTS ON ALL CONSTRUCTION EQUIPMENT DISCOUNT FROM CURRENT CATERPILLAR LIST FOR CONTRUCTION PARTS; 0% DISCOUNT FROM MANUFACTURER PRICE PAGES. "OPTION TO INCREASE OR DECREASE BASED ON ACTUAL REPAIRS NEEDED AT TIME OF SERVICE"	53,896.34	53,896.34
4.00	LOT	FIELD ENGINEERING ON SITE (NORMAL BUSINESS HOURS)	3,076.92	12,307.68
1.00	LOT	TRAVEL AND LODGING EXPENSES	5,713.69	5,713.69
5.00	EACH	ITEM# PARTS 171CBU98091 SCHNEIDER UNITY MIE PLS	1,769.23	8,846.15
3.00	EACH	ITEM# PARTS 170ADM85010 MODICON 12VDC 16IN/16OUT BASE	643.69	1,931.07
2.00	EACH	ITEM# PARTS 170AMM1130 MODICON 2AI 2AO 12DI 8DO 10-45 BASE	2,269.57	4,539.14
3.00	EACH	ITEM# PARTS XDCR-MTWDN7CDM500XXC BITRONICS POWERPLEX II TRANSDUCER	3,692.31	11,076.93
1.00	EACH	ITEM# PARTS TS-17-24VDC-ISO-VI ELO 17" ISO TOUCHSCREEN	3,123.08	3,123.08
1.00	EACH	ITEM# PARTS 17" TS AND BEZEL 17" TS AND BEZEL (REG. $2230, DISCO)	1,715.38	1,715.38
1.00	EACH	ITEM# PARTS MCMU-BTXISOCOMPUTERONLY DYNICS COMPUTER WITH WINDOWS 7	7,892.31	7,892.31
1.00	EACH	ITEM# PARTS FACTORY TALK SOFTWARE BUNDLE FACTORY TALK SOFTWARE BUNDLE (100)	5,998.20	5,998.20
2.00	EACH	ITEM# PARTS CAT-256-7512 PL1000E COMMUNICATION EXPLORER MOD	1,189.66	2,379.32

Authorized By: _____

Requisition
HIDALGO COUNTY JAIL

Req # 00304769
PO #
Date: 08/25/16

Bill To: x
x

Vendor : 94366
BD HOLT CO
D/B/A HOLT TRUCK CENTER
P.O. BOX 911975
DALLAS TX 75391-1975
FAX (361)854-3367

Ship To: HIDALGO COUNTY JAIL
701 EL CIBOLO RD
EDINBURG Tx 78539

Contact:

QUANTITY	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1.00	EACH	ITEM# PARTS MISC HDWR- MISC HDWR (ETHERNET CARDS, BRACKETS, CONNECTORS, CABLES, ETC.)	1,398.60	1,398.60
4.00	EACH	ITEM# PARTS 1783-US6T2F STRATIX 2000 6 PORT RJ45 WITH 2 FIBER	1,025.14	4,100.56
		Account No	Encumbrance	
		6-2102-423-21-280-015-0-751	124,918.45	
			Freight	.00
			Total	124,918.45

Authorized By: _____

CAT Electric Power

PRODUCT SUPPORT QUOTE

CAT-ISO.com

Job Name: Hidalgo Edinburg, TX
Status: Delivered
Dealer: Holt Power Systems
Quote Number: 068091 **rev:** 00
Delivered: 07/01/2016

Requested By:	Wesley West (Wesley.West@holtcat.com)	Office: 956-455-4700	Mobile:
Sales Manager:	Cheryl Landis	Office:	Mobile: 404-725-2789
Sales Engineer:	Stephanie James	Office: 678-746-5011	Mobile:
Quote valid thru:	09/29/2016	Estimated Ship Date:	

BUY BOARD# 424-13

DESCRIPTION	Part Number	Unit Price	Unit	Qty	PRICE
PLC and HMI Controls Modernization Upgrade (Includes Engine Comms) (FS REMEDIAL)		**$124,918.45**			**$124,918.45**
In House Production (Programming, Engineering, HMI, CAD, Logistics)		$53,896.34		1	$53,896.34
Field Engineer On site (Normal Business Hours)		$3,076.92		4	$12,307.68
Travel and Lodging Expenses		$5,713.69		1	$5,713.69
Parts		**$53,000.74**			**$53,000.74**
Schneider Unity M1E PLC	PLC-171CBU98091	$1,769.23	EA	5	$8,846.15
MODICON 12VDC 16IN/16OUT BASE	PLC-170ADM85010	$643.69	EA	3	$1,931.07
MODICON 2AI 2AO 12DI 8DO 10-45 BASE	PLC-170AMM11030	$2,269.57	EA	2	$4,539.14
BITRONICS PowerPlex II Transducer	XDCR-MTWDN7CDM500XXC	$3,692.31	EA	3	$11,076.93
ELO 17" ISO TOUCHSCREEN	TS-17-24VDC-ISO-VI	$3,123.08	EA	1	$3,123.08
17" TS AND BEZEL (Reg. $2230, Disco	17" TS AND BEZEL	$1,715.38	EA	1	$1,715.38
Dynics Computer w/ Windows 7	MCMU-BTXISOCOMPUTERONLY	$7,892.31	EA	1	$7,892.31
FACTORY TALK SOFTWARE BUNDLE (100)	FACTORY TALK SOFTWARE BUNDLE	$5,998.20	EA	1	$5,998.20
PL1000E Communication Explorer Mod	CAT-256-7512	$1,189.66	EA	2	$2,379.32
MISC HDWR (Ethernet Cards, Brackets, Connectors, Cables, Etc..)	MISC HDWR-	$1,398.60	EA	1	$1,398.60
Stratix 2000 6 Port RJ45 w/ 2 Fiber	1783-US6T2F	$1,025.14	EA	4	$4,100.56

Req 304769

QUOTE TOTAL: $124,918.45

TERMS:

This quotation represents a fixed rate price for travel, labor and materials described in this estimate. All work includes CAT Switchgear standard after-market warranty terms and conditions. Applicable taxes, duties and freight are not included and will be added at time of invoice unless otherwise stated. Returned parts are subject to a re-stocking fee. Any additional labor or material required but not included as a result of change in scope will be invoiced as accrued. Canceled orders will be invoiced to include any material return fees, non-refundable travel, and submittal labor if applicable. Payment terms are net 30 days.

GENERAL NOTES AND CLARIFICATIONS:

This proposal is provided to Holt Power Systems for requested PLC Modernization Upgrade at the Hidalgo County Adult Detention Center. Please see attached General Notes and Clarifications document.

Zimbra **rudy.salinas1@co.hidalgo.tx.us**

Re: HIDALGO COUNTY SHERIFF'S DEPT. GENERATOR SYSTEM

From : Rudy Salinas <rudy.salinas1@co.hidalgo.tx.us> Fri, Sep 02, 2016 11:15 AM
Subject : Re: HIDALGO COUNTY SHERIFF'S DEPT. GENERATOR SYSTEM 2 attachments
To : Joe Washington <Joe.Washington@holtcat.com>
Cc : Juan Tapia <juan.tapia@hidalgoso.org>, tanya. delira <tanya.delira@co.hidalgo.tx.us>

Joe,

Can you please provide us a notarized HB-1295 form as soon as possible with the following information specified in section three of the form:

Req#304769; CAT Power Generator Backup System Equipment, Software, Service, & Installation

Thank You,

Rudy Salinas, Procurement Manager
Hidalgo County Purchasing Department
2808 South Business Highway 281
Edinburg, Texas 78539
Phone: 956-318-2626 Ext: 4875
Email: rudy.salinas1@co.hidalgo.tx.us

From: "Joe Washington" <Joe.Washington@holtcat.com>
To: "Rudy Salinas" <rudy.salinas1@co.hidalgo.tx.us>
Cc: "Gabriel Fonseca" <Gabriel.Fonseca@holtcat.com>, "Juan Tapia" <juan.tapia@hidalgoso.org>
Sent: Thursday, September 1, 2016 9:36:04 AM
Subject: RE: HIDALGO COUNTY SHERIFF'S DEPT. GENERATOR SYSTEM

Rudy,

Yes it is a Caterpillar system, the original switch parts are no longer available from Caterpillar.

Only the upgraded parts are now available.

If you do nothing in at all, then the switch may fail when needed.

Zimbra **rudy.salinas1@co.hidalgo.tx.us**

RE: HIDALGO Co. SHERIFF'S DEPT. GENERATOR SYSTEM

From : Juan Tapia <juan.tapia@hidalgoso.org> Thu, Sep 01, 2016 10:54 AM
Subject : RE: HIDALGO Co. SHERIFF'S DEPT. GENERATOR SYSTEM 2 attachments
To : rudy salinas1 <rudy.salinas1@co.hidalgo.tx.us>
Cc : Daniel Casarez <daniel.casarez@hidalgoso.org>, Francisco Dehoyos <francisco.dehoyos@hidalgoso.org>

Rudy,

Pursuant to our telephone conversation in order to move on to issue a PO for Generators Upgrade
Agree on your opinion to request the Auditor Office support to proceed as a "Discretionary Exemption" project.
Considering the recommendations from Holt Cat, of our equipment status this is a must priority.
Respectfully,

Juan Tapia
Procurement Specialist
Hidalgo Co. Sheriff's Office
Tel 292-2933

From: Joe Washington [mailto:Joe.Washington@holtcat.com]
Sent: Thursday, September 01, 2016 9:36 AM
To: Rudy Salinas
Cc: Gabriel Fonseca; Juan Tapia
Subject: RE: HIDALGO COUNTY SHERIFF'S DEPT. GENERATOR SYSTEM

Rudy,

Yes it is a Caterpillar system, the original switch parts are no longer available from Caterpillar.
Only the upgraded parts are now available.
If you do nothing in at all, then the switch may fail when needed.

Thanks
Joe

My goal is to provide legendary customer service.
Did I earn a 10 today? Please share your feedback.

Joe Washington
EPG & Marine Product Support

1319 S.P.I.D.
Corpus Christi, Texas, 78416
Office# 361-698-5745
Cell# 361-946-2934
E-Mail: joe.washington@holtcat.com

From: Rudy Salinas [mailto:rudy.salinas1@co.hidalgo.tx.us]
Sent: Wednesday, August 31, 2016 3:20 PM
To: Joe Washington
Cc: Gabriel Fonseca; Juan Tapia
Subject: Re: HIDALGO COUNTY SHERIFF'S DEPT. GENERATOR SYSTEM

Joe,

Thanks for the information, however I would also like to confirm if the existing backup generator system is indeed a CAT System?
Would this proposed upgrade address all the component failures that were discovered during your site visit on May 27, 2016?

Can we merely replace only the components that you mention including the transfer switch without upgrading the entire system?
If not, why not? What are the risks / consequences in not doing anything at all?
Thank You,

Rudy Salinas, Procurement Manager
Hidalgo County Purchasing Department
2808 South Business Highway 281
Edinburg, Texas 78539
Phone: 956-318-2626 Ext: 4875
Email: rudy.salinas1@co.hidalgo.tx.us

From: "Joe Washington" <Joe.Washington@holtcat.com>
To: "rudy salinas1" <rudy.salinas1@co.hidalgo.tx.us>
Cc: "Gabriel Fonseca" <Gabriel.Fonseca@holtcat.com>
Sent: Wednesday, August 31, 2016 2:04:26 PM
Subject: HIDALGO COUNTY SHERIFF'S DEPT.

Rudy,
Here is the techs report, please contact me on any questions.
Thanks
Joe

My goal is to provide legendary customer service.
Did I earn a 10 today? Please share your feedback.

Joe Washington
EPG & Marine Product Support

1319 S.P.I.D.
Corpus Christi, Texas, 78416
Office# 361-698-5745
Cell# 361-946-2934
E-Mail: joe.washington@holtcat.com

REPAIR PROCESS COMMENTS:
5/27/16
CHECKED WITH CUSTOMER AND FOUND THAT THE ISO SWITCHGEAR TOUCH SCREEN PANEL WAS NOT WORKING CUSTOMER ALSO STATED THAT THERE WAS FLASH MARKS INSIDE THE CABINET BEHIND THE TSP 201 MODULE. THEY REMOVED THE MODULE THEMSELVES AND FOUND THAT IT WAS BURNED UP, THE POWER INVERTER ALSO WAS NOT WORKING. I CALLED AND TALKED TO A SERVICE TECH. AT ISO AND TOLD HIM ABOUT THE POWER MODULE AND THE INVERTER, HE THEN HAD ME CONNECT THE TOUCH SCREEN MONITOR TO MY LAP TOP TO SEE IF IT WAS FUNCTIONAL. THE TOUCH SCREEN DID POWERED UP AND HAD A DISPLAY ON IT, THE DISPLAY MAYBE OK BUT WILL BE INCLUDED IN THE QUOTE FROM CAT ISO WITH THE THE INVERTER AND THE TSP 201 MODULE.

Current Status

image001.jpg
3 KB

image002.jpg
3 KB

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-107805

Date Filed:
09/02/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Holt Texas, LTD.
San Antonio, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
Hidalgo County Sheriff's Department

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
304769
CAT Power Generator Backup System Equipment, Software, Service & Installation

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary
WASHINGTON, Joe	Corpus Christi, TX United States		X
RICHTER, Corinna Holt	San Antonio, TX United States	X	
HOLT, Peter J	San Antonio, TX United States	X	
HOLT , Julianna	San Antonio, TX United States	X	
HOLT, Peter M	San Antonio, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

LUCY M. TITZMAN
NOTARY PUBLIC-STATE OF TEXAS
COMM EXP. 07-02-2017
NOTARY ID 4097765

Paul C. Hensley
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Paul C Hensley, this the 2 day of September, 20 16, to certify which, witness my hand and seal of office.

Lucy M. Titzman — LUCY M TITZMAN — Notary Public
Signature of officer administering oath — Printed name of officer administering oath — Title of officer administering oath

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2016-107805

Date Filed:
09/02/2016

Date Acknowledged:
09/06/2016

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Holt Texas, LTD.
San Antonio, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Hidalgo, County Sheriff's Department

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

304769
CAT Power Generator Backup System Equipment, Software, Service & Installation

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
WASHINGTON, Joe	Corpus Christi, TX United States		X
RICHTER, Corinna Holt	San Antonio, TX United States	X	
HOLT, Peter J.	San Antonio, TX United States	X	
HOLT, Julianna	San Antonio, TX United States	X	
HOLT, Peter M.	San Antonio, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

_____
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

AI-56332 **Closed Session** **14. C.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted By: Monica Badillo, EXECUTIVE OFFICE

Department: EXECUTIVE OFFICE

Information

CAPTION

CCD-0371-E; Hidalgo County Regional Mobility Authority v. Jose A. Aguilar et al

BACKGROUND

Fiscal Impact

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Monica Badillo Started On: 09/09/2016 05:19 PM

Final Approval Date: 09/09/2016

AI-56255 **Closed Session** **14. D.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Armando Guzman, SAFETY DIVISION

Submitted By: Aida Alvarez, SAFETY DIVISION

Department: SAFETY DIVISION

Information

CAPTION

Claim of Ody Ozuna

BACKGROUND

Fiscal Impact

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/07/2016 04:09 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Aida Alvarez		Started On: 09/07/2016 04:05 PM
Final Approval Date: 09/09/2016		

AI-56333 **Open Session** **16. C.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted By: Monica Badillo, EXECUTIVE OFFICE

Department: EXECUTIVE OFFICE

Information

CAPTION

CCD-0371-E; Hidalgo County Regional Mobility Authority v. Jose A. Aguilar et al

BACKGROUND

Fiscal Impact

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Final Approval	Monica Badillo	09/09/2016 05:34 PM

Form Started By: Monica Badillo Started On: 09/09/2016 05:20 PM

Final Approval Date: 09/09/2016

AI-56256 **Open Session** **16. D.**

CC - REGULAR

Meeting Date: 09/13/2016

Submitted For: Armando Guzman, SAFETY DIVISION

Submitted By: Aida Alvarez, SAFETY DIVISION

Department: SAFETY DIVISION

Information

CAPTION

Claim of Ody Ozuna

BACKGROUND

Fiscal Impact

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Budget & Management	Veronica Ortiz	09/07/2016 04:09 PM
Final Approval	Monica Badillo	09/09/2016 05:34 PM
Form Started By: Aida Alvarez		Started On: 09/07/2016 04:06 PM
Final Approval Date: 09/09/2016		