FILED
AT 10:30 O'CLOCK A M
OCT 15 2015
ARTURO GUAJARDO JR., COUNTY CLERK
HIDALGO COUNTY, TEXAS
BY DEPUTY

CONTRACT DOCUMENTS

FOR THE

HIDALGO COUNTY PRECINCT NO.1

Paving and Drainage Improvements to:

Spanish Palms Subdivision

Hidalgo County Precinct 1

Hidalgo County, Texas

July 2015

STATE OF TEXAS
EMIGDIO SALINAS
107703
LICENSED
PROFESSIONAL ENGINEER
7-28-15

Emigdio "Milo" Salinas, PE

Civil Engineer:

LeFEVRE ENGINEERING & MANAGEMENT CONSULTING, LLC
612 Nolana, Suite 520
McAllen, Texas 78504
Tel. 956.687.LEMC
Fax. 956.687.5363
Texas Registered Engineering Firm F-11722

LEMC No. 175

General Request for Bid Package
Table of Contents

I. **Bidding Requirements**
- A. Request for Bid Advertisement
- B. Request for Bid Legal Notice
  - a. Bid Bond
  - b. Exhibit "A" Specifications
  - c. Exhibit "B" Bid Page & Attachments
  - d. Exhibit "C" Insurance Requirements
  - e. Exhibit "D" C.I.Q.
  - f. Exhibit "E" Proposer's Affidavit
- C. Vendor Application
- D. Start-Up Documents
  - a. Contract (Draft)
  - b. W-9 IRS Form
  - c. Statement of Credentials
  - d. County Forms Submittal Checklist

II. **Bonding Requirements**
- A. Payment Bond
- B. Performance Bond

III. **Index of General Conditions**
- A. General Conditions

IV. **Labor Standard Documents**
- A. Davis Bacon
  - a. Wage Decision: TX150008
  - b. Title 29-Labor
  - c. Making Davis Bacon Work
  - d. Required Payroll forms
  - e. Federal Labor Standards
  - f. Required Display Forms

V. **Close-Out Documents**
- A. Certificate of Construction Completion
- B. Contractor's Release and Waiver of Lien
  - a. Sub-Contractors Release and Waiver of Lien

Hidalgo County Purchasing Department
2812 S. Business Highway 281
Edinburg, Texas 78539
(956) 318-2626/ Fax: (956) 318-2629

HIDALGO COUNTY PRECINCT No. 1
"Paving & Drainage Improvements to: Spanish Palms Subdivision"

BID No. -2015-256-08-12-MSS

TABLE OF CONTENTS –**for COUNTY'S FRONT END DOCUMENTS**

Item	Description	No. of Pages
1.	Invitation Letter and Advertisement	2
2.	Legal Notice	9
3.	Exhibit C, Insurance Requirements	4
4.	Exhibit D, CIQ Conflict of Interest Questionnaire	1
5.	Exhibit E, Proposer's Affidavit	1
6.	Certification Regarding Debarment	1
7.	Vendor/Bidder Application and W-9 form	6
8.	Statement of Credentials	5
9.	County Forms Submittal Check List	1

The above mentioned items shall be found in this RFB packet. 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.

PURCHASING DEPARTMENT
County Of Hidalgo

July 27, 2015

_____

_____

_____

_____

Re: **HIDALGO COUNTY PRECINCT No. 1**
Request for Bids –**"Paving & Drainage Improvements to: Spanish Palms Subdivision"**
Bid No: 2015-256-08-12-MSS

Dear Gentleman/Ladies:

Enclosed please find a Request for Bid (RFB) packet for your review and consideration.

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/mss

Enclosures

INVITATION TO BIDDERS

The County of Hidalgo would like to invite you to submit a bid on the following:

Bid No.:	Bid Description:	Opening Date:
2015-256-08-12-MSS	"Hidalgo County Precinct No. 1 – Paving & Drainage Improvements to: Spanish Palms Subdivision"	AUGUST 12, 2015

PROCUREMENT PACKETS. Interested contractors may obtain bid packets at project engineer's office: LeFevre Engineering & Management Consulting, LLC at 612 Nolana, Suite 520, McAllen, Texas 78504 Phone No. (956) 687-5362 for the amount of $100. General and/or Prime Contractors submitting bids and/or proposals to the County of Hidalgo shall be non-refundable.

PRE-BID CONFERENCE is scheduled for **MONDAY, August 3, 2015 at 3:00 P.M.** at **HIDALGO COUNTY NEW ADMINISTRATION BUILDING - PURCHASING DEPARTMENT 2812 S Business Hwy 281, EDINBURG, TEXAS 78539**

A BIDDER'S BOND from a reliable surety company licensed to operate in the State of Texas or certified Cashier's Check, payable without recourse to the County of Hidalgo, for the amount of not less than 5% of the total bid shall accompany the bid as guaranty that, if awarded the contract, the bidder will enter into a contract with the County of Hidalgo.
A Payment Bond is required in the amount of one hundred percent (100%) of the Contract Amount, if the awarded contract exceeds $25,000, and a Performance Bond is required in the amount of one hundred percent (100%) of the Contract Amount, if the awarded contract exceeds $100,000.

UPON SUBMITTING SEALED BID, bidders are required to properly identify (handwritten, typed or printed) sealed envelope and/or packet as follows: Bidder's name and address on the upper left hand corner of the sealed envelope and/or package and **Bid No.:2015-256-08-12-MSS "PAVING & DRAINAGE IMPROVEMENTS TO SPANISH PALMS SUBDIVISION"** on the lower left hand corner of sealed envelope/and or packet. **OVERNIGHT MAIL MUST ALSO BE PROPERLY LABELED ON THE OUTSIDE OF EXPRESS ENVELOPE OR PACKAGE.**

The sealed bid must contain **one (1) original and three (3) copies** of bid and must be clearly identified and addressed for delivery to:

HIDALGO COUNTY PURCHASING DEPARTMENT, Attn: Martha L. Salazar, CPPB, County Purchasing Agent.
US Postal Mail/Courier Address: Hidalgo County New Administration Building, 2812 S. Business Hwy 281, Edinburg, TX 78539
Physical Location: Hidalgo County New Administration Building, 2802 S. Business Hwy. 281 (Southeast of Canton Rd & Business Hwy 281) Edinburg, TX

BIDS ACCEPTANCE: Sealed bids will be accepted until **3:00 p.m. on Wednesday, AUGUST 12, 2015** at which time they will be opened in the Hidalgo County Purchasing Department Conference Room at **Physical Location: 2802 S. Business Hwy 281, Hidalgo County New Administration Building, Edinburg, Texas 78539.** NO FACSIMILES OR LATE ARRIVALS WILL BE ACCEPTED. ANY BID RECEIVED AFTER THAT TIME WILL NOT BE OPENED AND WILL BE RETURNED

Attention is called to the fact that not less than, the federally determined prevailing **(Davis-Bacon and Related Acts)** wage rate, as issued and contained in the contract documents, must be paid on this project. In addition, the successful bidder must ensure that employees and applicants for employment are not discriminated against because of race, color, religion, sex, age, disability or national origin.

BIDS MAY BE HELD by the County of Hidalgo for a period not to exceed sixty (60) days from the date of the opening of bids for the purpose of reviewing the bids and investigating the qualifications of bidders, prior to awarding of the contract.

THE COUNTY reserves the right to refuse and reject any/all bids and to waive any/all formalities or technicalities, or to accept the bids considered the best and most advantageous to the County.

Typed-written Requests For Information (RFI) shall be sent to Engineer. Please follow with a call to confirm receipt of RFI. RFI's will not be answered by phone. NO HAND WRITTEN RFI'S will be answered. All inquiries shall be forwarded by August 5th, 2015. Inquiries beyond this date will not be responded. Contact project engineer for copies of Addenda.

BY ORDER OF THE COMMISSIONERS COURT OF HIDALGO COUNTY, TEXAS on this the 21st of July, 2015.

MARTHA L. SALAZAR, CPPB
HIDALGO COUNTY PURCHASING AGENT

REPORT ROAD HAZARDS @ 1-866-HCR-SAFE OR 1-866-427-7233

REQUEST FOR BIDS (RFB)

HIDALGO COUNTY PRECINCT NO. 1

-"Paving & Drainage Improvements to: Spanish Palms Subdivision"

RFB NO: 2015-256-08-12-MSS

Acceptance Date: **August 12, 2015**

Martha L. Salazar, CPPB, Purchasing Agent
Hidalgo County Purchasing Department

Project Buyer Contact Information:

Moises Salazar, Buyer III
(956) 292-7000 Ext. 4863
moises.salazar@co.hidalgo.tx.us

Form HCPD-03

1. Sealed bids will be received for **"HIDALGO COUNTY PRECINCT NO. 1-PAVING & DRAINAGE IMPROVEMENTS TO: SPANISH PALMS SUBDIVISION"** 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/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: **"BID-2015-256-08-12-MSS- HIDALGO COUNTY PRECINCT NO. 1-PAVING & DRAINAGE IMPROVEMENTS TO: SPANISH PALMS SUBDIVISION"** and in County's Purchasing Department, physical address: 2802 S. Business Hwy 281, mailing address 2812 S. Business 281 New Administration Building,, Edinburg, Texas, **on or before 3:00 p.m., WEDNESDAY, AUGUST 12, 2015.**

   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 "REQUEST FOR BIDS -2015-256-08-12-MSS- HIDALGO COUNTY PRECINCT NO. 1 -PAVING & DRAINAGE IMPROVEMENTS TO: SPANISH PALMS SUBDIVISION".

   WRITTEN QUESTIONS WILL BE ACCEPTED. Written RFI's shall be sent to the office of project engineer: LeFevre Engineering & Management Consulting, LLC attn: Milo Salinas, P.E., *at milo@lefevregroup.net* . Please call 956-687-5362 to confirm receipt RFI. RFI's will not be answered by phone. NO HAND WRITTEN RFI'S will be answered. All inquiries shall be forwarded by August 05, 2015. Inquiries beyond this date will not be responded. Contact project engineer for copies of Addenda. All bidders who paid a deposit will be required to return Addenda as part of the Construction Documents in order to receive full deposit refund.

   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(s) 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 - **BID-2015-256-08-12-MSS- HIDALGO COUNTY PRECINCT NO. 1-"PAVING & DRAINAGE IMPROVEMENTS TO: SPANISH PALMS SUBDIVISION"** 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:

Ray Eufracio, CPA, Hidalgo County Auditor
2802 S. Business Hwy 281
Edinburg, TX 78539
(956) 318-2511

17. Schedule

Pre-Bid Conference,	**3:00 PM**	**August 3rd, 2015**
Bid Opening,	**3:00 PM**	**August 12th, 2015**
Award of Contract		_____, 2015
Commence Work or Deliver Products		_____, 2015

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.

. 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 $100,000.

. 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.

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.

20. Disclosure of Conflict of Interest

. Effective January 1, 2006, 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.

Please Submit completed CIQ forms 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 BIDDER.

21. 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 County.

22. Bids, 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 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 and submit a Certificate of Account Status indicating bidder is in "Good Standing" with the Texas Comptroller of Public Accounts if such bidder is incorporated in the State of Texas. If the bidder is not incorporated with the Texas, the bidder must submit the appropriate evidence of filing with the Texas Secretary of State stating that the business is authorized to transact business in Texas.**
- 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.

24. 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.

25. 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.

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 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.

27. 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.

28. 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.

29. ***Vendors hereby assigns to purchaser any and all claims for overcharges associated with this contract which arise under the antitrust laws of the United States, 15 USCA, Section 1 et. seq., and which arise under the antitrust laws of the State of Texas, Bus. & Com. Code, Section 15.01, et. seq.***

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.

COPY

BIDDERS ACKNOWLEDGEMENT
Bid
for

HIDALGO COUNTY PRECINCT NO. 1
"PAVING & DRAINAGE IMPROVEMENTS TO: SPANISH PALMS SUBDIVISION"
BID-2015-256-08-12-MSS

To: Martha L. Salazar, CPPB, Purchasing Agent
Hidalgo County Purchasing Department
2802 S. Bus. 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:	2GS, LLC
Address:	P.O. Box 595, Penitas, Texas 78576
By:	
Printed Name:	Humberto Garcia Jr.
Title:	Member

(This page must be submitted in response)

EXHIBIT "A"

SPECIFICATIONS:

Hidalgo County
Hidalgo County Precinct No. 1 – Paving and Drainage Improvements to:
Spanish Palms Subdivision
Bid No.: 2015-256-08-12-MSS

SCOPE OF WORK, SPECIFICATION REQUIREMENTS AND OTHER TERMS & CONDITIONS:

The County Of Hidalgo requests proposals for:
"Hidalgo County Precinct No. 1 – Paving and Drainage Improvements to:
Spanish Palms Subdivision"
(See attached specifications as prepared by LeFevre Engineering & Management Consulting LLC.)

Engineering Firm Contact:
Emigdio "Milo" Salinas, P.E., Project Engineer
612 Nolana, Suite 520
McAllen, TX 78504
956-687-5362

Precinct Contact:
Katia Garcia, Accountant
956-968-8733, EXT. 1022

Hidalgo County-Purchasing Department Contact:
Vangie Y. Garcia, Contract Manager
956-292-7000, EXT. 4856

Hidalgo County Precinct No. 1

Paving and Drainage Improvements to: Spanish Palms Subdivision
Hidalgo County, Texas

Technical Specifications

SPECIFICATIONS

DIVISION 1 - GENERAL REQUIREMENTS

01010	Scope of Work	1
01110	Summary of Work	1
01145	Use of Premises	3
01321	Construction Photography	2
01330	Submittal Procedures	4
01410	TPDES Requirements	3
01454	Testing Laboratory Services	3
01502	Mobilization	1
01504	Temporary Facilities and Controls	8
01555	Traffic Control and Regulation	1
01570	Storm Water Pollution Control	11
01572	Source Controls for Erosion and Sedimentation	4
01573	Filter Fabric Fence	3
01575	Stabilized Construction Exit	3
01576	Waste Material Disposal	1
01578	Control of Ground Water and Surface Water	4
01720	Project Record Documents	2

DIVISION 2 – SITE WORK

02221	Removing Existing Pavements and Structures	2
02233	Cleaning and Grubbing	2
02315	Roadway Excavation and Roadside Ditches	3
02316	Excavation and Backfill Around Structures	6
02320	Utility Backfill Materials	8
02330	Embankment	3
02711	Chain Link Fence	2
02740	Asphalt Overlay and Base Repair	5
02741	Asphalt Concrete Pavement	5
02742	Prime Coat	3
02743	Tack Coat	3
02751	Concrete Pavement	10
02752	Concrete Pavement Joints	3
02753	Concrete Pavement Curing	2
02756	Cold Milling	3

DIVISION 3 – CONCRETE

03211	Reinforcing Steel	7
03315	Concrete	11

END OF DOCUMENT

Division 1
General Requirements

SECTION 01010

SCOPE OF WORK

This Scope of Work and any accompanying drawings are intended as a guide to the Contractor in identifying the work to be accomplished in completing this project. This Scope of Work may not be all inclusive and the Contractor shall be responsible for providing all supervision, labor, materials, equipment, direction, and coordination necessary to perform and totally complete the work in conformance with the drawings and specifications. If an "or equal" substitution is made for any of the recommended items shown in the specifications or drawings, the Contractor shall be responsible for providing all the necessary physical modifications to fully accommodate the substitution at no change in contract price.

PART 1. GENERAL

1.01 CIVIL

A. Work of the Project consists of paving and drainage improvements to Spanish Palms Subdivision.

1.02 CONSTRUCTION RECORD DRAWINGS

A. The Contractor shall maintain a complete master set of construction "red-line" drawings to document any field changes to the "Issued for Construction" drawing set which shall accurately depict the "As-Built" construction of the plant. Following Mechanical completion, this drawing set shall be turned over to the Engineer for updating the for Record "As-Built" drawings.

B. Any drawings and documentation which are to be supplied by the Contractor, shall be updated to accurately depict the "As-Built" construction of the plant and turned over to the Engineer following Mechanical Completion of the project. These items shall be certified by the Contractor's Project Manager as accurate and complete.

1.03 SUBCONTRACTOR COORDINATION

The Contractor shall be responsible for coordination of the work between his various subcontractors to prevent conflicts and schedule interruptions.

1.04 SAFETY REQUIREMENTS

A. The Contractor shall provide all safety equipment required by his employees to meet Occupational Safety and Health Administration (OSHA) safety requirements.

END OF SECTION 01010

SECTION 01110

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Summary of the Work including work by the Owner, Owner-furnished Products, work sequence, future work, Contractor use of Premises, special conditions for substantial completion and City occupancy.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work of the Contract is for paving and drainage improvements to Spanish Palms Subdivision.

1.03 OWNER-FURNISHED PRODUCTS

A. Items Furnished by the Owner for installation and final connection by Contractor: Owner will waive the sanitary sewer connection fee.

B. Contractor's Responsibilities:

1. Arrange and pay for Product delivery to the site.
2. Receive and unload Products at the site; jointly with the Owner, inspect for completeness or damage.
3. Handle, store, Install, and finish Products.
4. Repair or replace damaged items.

1.04 CONTRACTOR USE OF PREMISES

A. Comply with procedures for access to the site and Contractor's use of rights-of-way.

B. Construction Operations: Limited to the Owner's rights-of-way provided by the Owner and areas shown or described in the Contract documents.

C. Utility Outages and Shutdown: Provide a minimum of 48 hours notice to the Owner and private utility companies (when applicable), excluding weekends and holidays, in advance of required utility shutdown. Coordinate all work as required.

PART 2 P R O D U C T S - Not Used

PART 3 E X E C U T I O N - Not Used

END OF SECTION - 01110

Section 01145

USE OF PREMISES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Section includes general use of the site including properties inside and outside of rights-of-way, work affecting road, ramps, streets and driveways and notification to adjacent occupants.

1.02 RIGHTS-OF-WAY

A. Confine access and operations and storage areas to rights-of-way provided by Owner as stipulated in Document 00700 - General Conditions; trespassing on abutting lands or other lands in the area is not allowed.

B. Contractor may make arrangements, at Contractor's cost, for temporary use of private properties, in which case Contractor and Contractor's surety shall indemnify and hold harmless the Owner against claims or demands arising from such use of properties outside of rights-of-way.

C. Restrict total length which materials may be distributed along the route of the construction at any one time to 1,000 linear feet unless otherwise approved in writing by Resident Project Representative.

1.03 PROPERTIES OUTSIDE OF RIGHTS-OF-WAY

A. Altering the condition of properties adjacent to and along rights-of-way will not be permitted.

B. Means, methods, techniques, sequences, or procedures which will result in damage to properties or improvements in the vicinity outside of rights-of-way will not be permitted.

C. Any damage to properties outside of rights-of-ways shall be repaired or replaced to the satisfaction of the Resident Project Representative and at no cost to the Owner.

1.04 USE OF SITE

A. Obtain approvals of governing authorities prior to impeding or closing public roads or streets. Do not close more than two consecutive intersections at one time.

B. Notify Resident Project Representative at least 48 hours prior to closing a street for a street crossing. Permission for street closures is required in advance and are the responsibility of the Contractor.

C. Maintain access for emergency vehicles including access to fire hydrants.

D. Avoid obstructing drainage ditches or inlets; when obstruction is unavoidable due to requirements of the Work, provide grading and temporary drainage structures to maintain unimpeded flow.

E. Locate and protect private lawn sprinkler systems which may exist on rights-of-ways within the site. Repair or replace damaged systems to condition equal to or better than that existing at start of Work at no separate payment.

F. Perform daily clean-up of dirt outside the construction zone, and debris, scrap materials, and other disposable items. Keep streets, driveways, and sidewalks clean of dirt, debris and scrap materials. Do not leave building, roads, streets or other construction areas unclean overnight.

1.05 NOTIFICATION TO ADJACENT OCCUPANTS

A. Notify individual occupants in areas to be effected by the Work of the proposed construction and time schedule. Notification shall be not less than 72 hours or more than 2 weeks prior to work being performed within 200 feet of the homes or businesses.

B. Include in notification names and telephone numbers of two company representatives for resident contact, who will be available on 24-hour call. Include precautions which will be taken to protect private property and identify potential access or utility inconvenience or disruption.

C. Consideration shall be given to the ethnicity of the neighborhood where English is not the dominant language. Notice shall be in an understandable language.

1.06 PUBLIC, TEMPORARY, AND CONSTRUCTION ROADS AND RAMPS

A. Construct and maintain temporary detours, ramps, and roads to provide for normal public traffic flow when use of public roads or streets is closed by necessities of the Work.

B. Provide mats or other means to prevent overloading or damage to existing roadways from tracked equipment or large or heavy trucks or equipment.

1.07 EXCAVATION IN STREETS AND DRIVEWAYS

A. Avoid needless hindering or inconveniencing public travel on a street or any intersecting alley or street for more than two blocks at any one time.

B. Remove surplus materials and debris and open each block for public use as work in that block is complete.

C. Acceptance of any portion of the Work will not be based on return of street to public use.

D. Avoid obstructing driveways or entrances to private property.

E. Provide temporary crossing or complete the excavation and backfill in one continuous operation to minimize the duration of obstruction when excavation is required across drives or entrances.

1.08 TRAFFIC CONTROL

A. Provide traffic control plan, traffic control, flagmen, signals, control devices, lights, traffic signals, barricades and signs in accordance with the State of Texas Manual on Uniform Traffic Control Devices.

1.09 SURFACE RESTORATION

A. Restore site to condition existing before construction to satisfaction of Resident Project Representative.

B. Repair paved area per the requirements of Section 02951 - Pavement Repair and Resurfacing.

C. Repair turf areas which become damaged, level with bank run sand conforming to Section 02317 - Excavation and Backfill for Utilities, or topsoil conforming to Section 02911 - Topsoil, as

approved by the Resident Project Representative and re-sod in accordance with Section 02922 - Sodding. Water and level newly sodded areas with adjoining turf using steel wheel rollers appropriate for sodding. Do not use spot sodding or sprigging.

PART 2 P R O D U C T S - Not Used

PART 3 E X E C U T I O N - Not Used

END OF SECTION

Section 01321

CONSTRUCTION PHOTOGRAPHS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Photographic requirements for construction photographs and submittals.

1.02 SUBMITTALS

A. Prints: Furnish 2 sets of 4-inch by 6-inch prints of each view and submit 1 print directly to the Engineer within 7 days of taking photographs. One print shall be retained by the Contractor in the field office at the Project site and available at all times for reference.

B. Extra Prints: When requested by the Engineer, the Contractor shall submit extra prints of photographs, with distribution directly to designated parties who will pay the costs for the extra prints directly to the photographer.

C. When required by individual sections, submit photographs taken prior to start of construction to show original site conditions.

D. When required by Contract Documents, submit photographs with monthly Pay Estimate.

E. Negatives: With each submittal, include photographic negatives, in protective envelopes, identified by Project name, Contractor, and date photographs were taken.

F. In lieu of negatives, Contractor may submit electronic files of digital photographs if using a digital camera, but must comply with Parts 1 and 2 of this section.

1.03 QUALITY ASSURANCE

A. Contractor shall be responsible for the timely execution of the photographs, their vantage point, and quality.

B. Photographs: Two prints; color, matte finish; 4 x 6 -inch size, mounted on 8-1/2 x 11- inch soft card stock, with left edge binding margin for three hole punch. Digital photos shall not be distorted to fit card stock.

PART 2 PRODUCTS

2.01 PRECONSTRUCTION PHOTOGRAPHS

A. Prior to the commencement of any construction, take 35 mm or digital color photographs of the site of the project and present two sets of prints to the Engineer for their use in contract administration and inspection. Subject matter of the photographs to be determined by the Engineer.

B. The photographs shall show on a non-reflective chalkboard readable in the photograph:

1. Job number.

2. Date and time photographs were taken.

3. Location and compass direction of the photograph, along with the project number.

4. Date shall be on negative (35mm) or on digital image.

5. Provide notation of vantage point marked for location and direction of shot, on a key plan of the site.

C. Sufficient number of photographs shall be taken to show the existence or non-existence of cracked paved surfaces and the condition of trees, shrubs, and grass.

D. Identify each photograph with an applied label or rubber stamp on the back with the following information:

1. Name of the Project.

2. Name and address of the photographer (if a professional photographer is used).

3. Name of the Contractor.

4. Date the photograph was taken.

5. Photographs shall be in plastic pockets and bound in three-ring notebook for easy access and viewing.

2.02 PROGRESS PHOTOGRAPHS

A. Take photographs of subject matter selected by Resident Project Representative at intervals, coinciding with the cutoff date associated with each application for payment. Select the vantage points for each shot each month to best show the status of construction and progress since the last photographs were taken.

1. Vantage Points: Follow direction by the Resident Project Representative to select vantage points. During each of the following construction phases take not less than 2 of the required shots from the same vantage point each time to create a time-lapse sequence.

2. Photos shall be submitted according to Paragraphs 1.03 B. and 2.01 B and D.

PART 3 E X E C U T I O N - Not Used

END OF SECTION

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Submittal procedures for:

1. Schedule of Values
2. Construction Schedules and Cash Flow Curve (billing forecast).
3. Shop Drawings, Product Data and Samples
4. Operations and Maintenance (O&M) Data
5. Manufacturer's Certificates
6. Construction Photographs
7. Project Record Documents and monthly certification.
8. Video Tapes
9. Design Mixes

1.02 SUBMITTAL PROCEDURES

A. Scheduling and Handling:

1. Submit Shop Drawings, data and Samples for related components as required by Specifications and Engineer.
2. Schedule submittals well in advance of need for construction Products. Allow time for delivery of Products after submittal approval.
3. Develop submittal schedule that allows sufficient time for initial review, correction, resubmission and final review of all submittals. Allow a minimum of 30 days for initial review. Engineer will review and return submittals to Contractor as expeditiously as possible but time required for review will vary depending on complexity and quantity of data submitted.
4. Engineer's review of submittals covers only general conformity to Drawings, Specifications and dimensions that affect layout. Contractor is responsible for quantity determination. No quantities will be verified by Engineer. Contractor is responsible for errors, omissions or deviations from Contract requirements; review of submittals does not relieve Contractor from the obligation to furnish required items in accordance with Drawings and Specifications.
5. Submit five copies of documents unless otherwise specified.
6. Revise and resubmit submittals as required. Identify all changes made since previous submittal.
7. Assume risk for fabricated Products delivered prior to approval. Do not

incorporate Products into the Work, or include payment for Products in periodic progress payments, until approved by Engineer.

B. Transmittal Form and Numbering:

1. Transmit each submittal to Engineer with Transmittal letter which includes:

   a. Date and submittal number

   b. Project title and number

   c. Names of Contractor, Subcontractor, Supplier and manufacturer

   d. Identification of Product being supplied

   e. Location of where Product is to be installed

   f. Applicable Specification section number

2. Identify deviations from Contract documents clouding submittal drawings. Itemize and detail on separate 8-1/2 by 11-inch sheets entitled "DEVIATIONS FOR _____." When no deviations exist, submit a sheet stating no deviations exist.

3. Have design deviations signed and sealed by an appropriate design professional, registered in the State of Texas.

4. Sequentially number transmittal letters beginning with number one. Use original number for re-submittals with an alphabetic suffix (i.e., 2A for the first re-submittal of submittal 2, or 15C for third re-submittal of submittal 15, etc.). Show only one type of work or Product on each submittal. **Mixed submittals will not be accepted.**

C. Contractor's Stamp:

1. Apply Contractor's Stamp certifying that the items have been reviewed in detail by Contractor and that they comply with Contract requirements, except as noted by requested variances.

2. As a minimum, Contractor's Stamp shall include:

   a. Contractor's name

   b. Job number

   c. Submittal number

   d. Certification statement Contractor has reviewed submittal and it is in compliance with the Contract

   e. Signature line for Contractor

D. Submittals will be returned with one of the following Responses:

1. "Reviewed" when no response and re-submittal is required.

2. "Reviewed" when sufficient information has supplied to determine that item described is accepted and that no re-submittal is required.

3. "Reviewed; see comments" when sufficient information has been supplied to determine that item will be acceptable subject to changes, or exceptions, which will be clearly stated. When exceptions require additional changes, the changes must be submitted for approval. Re-submittal is not required when exceptions require no further changes.

4. "Rejected" when submittal does not contain sufficient information, or when information provided does not meet Contract requirements. Additional data or details requested by Engineer must be submitted to obtain approval.

1.03 MANUFACTURER'S CERTIFICATES

A. When required by Specification sections, submit manufacturers' certificate of compliance for review by Engineer.

B. Place Contractor's Stamp on front of certification.

C. Submit supporting reference data, affidavits, and certifications as appropriate.

D. Product certificates may be recent or from previous test results, but must be acceptable to Engineer.

1.04 DESIGN MIXES

A. When required by Specification sections, submit design mixes for review.

B. Place Contractor's Stamp, as specified in this section, on the front of each design mix.

C. Mark each mix to identify proportions, gradations, and additives for each class and type of mix submitted. Include applicable test results from samples for each mix. Perform tests and certifications within 12 months of the date of the submittal.

D. Maintain copies of approved mixes at mixing plant.

1.05 CHANGES TO CONTRACT

A. Changes to Contract may be initiated by completing a Request for Information form. Engineer will provide a response to Contractor by completing the form and returning it to Contractor.

1. If Contractor agrees that the response will result in no increase in cost or time, a Minor Change in the Work will be issued by Engineer.

2. If Contractor and Engineer agree that an increase in time or cost is warranted, Engineer will forward the Request for Proposal for negotiation of a Change Order.

PART 2 P R O D U C T S - Not Used

PART 3 E X E C U T I O N - Not Used

END OF SECTION - 01330

SECTION 01410

TPDES REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Documentation to be prepared and signed by Contractor before conducting construction operations, in accordance with the Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit Number TXR 150000 issued March 5, 2003 (the Construction General Permit).

B. Implementation, maintenance inspection, and termination of storm water pollution prevention control measures including, but not limited to, erosion and sediment controls, storm water management plans, waste collection and disposal, off-site vehicle tracking, and other appropriate practices shown on the Drawings or specified elsewhere in the contract.

C. Review of the Storm Water Pollution Prevention Plan (SWP3) implementation with Engineer prior to start of construction.

1.02 DEFINITIONS

A. Commencement of Construction Activities: The exposure of soil resulting from activities such as clearing, grading, and excavating.

B. Large Construction Activity: Project that:

1. disturbs five acres or more, or

2. disturbs less than five acres but is part of a larger common plan of development that will disturb five acres or more of land.

C. Small Construction Activity: Project that:

1. disturbs one or more acres but less than five acres, or

2. disturbs less than one acre but is part of a larger common plan of development that will ultimately disturb one or more acres but less than five acres.

D. TPDES Operator:

1. The person or persons who have day-to-day operational control of the construction activities which are necessary to ensure compliance with the SWP3 for the site or other Construction General Permit conditions.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWP3)

A. Prepare a SWP3 following Part III of the Construction General Permit and the Storm Water Management Handbook for Construction Activities issued under Owner Ordinance Section 47-695(b). If conflicts exist between the Construction General Permit and the handbook, the more stringent requirements will apply.

B. Update or revise the SWP3 as needed during the construction following Part III, Section E of the Construction General Permit.

C. Submit the SWP3 and any updates or revisions to Engineer for review and address comments prior to commencing, or continuing, construction activities.

3.02 NOTICE OF INTENT for Large and Small Construction Activity

A. Fill out, sign, and date TCEQ Form 20022 (02/03) Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity under the TPDES Construction General Permit (TXR 150000), SEE ATTACHMENT of this Section 01410.

B. Transmit the signed Contractor's copy of TCEQ Form 20022 (02/03), along with a $100.00 check, made out to Texas Commission on Environmental Quality.

C. Submission of the Notice of Intent form by the Contractor to TCEQ is required a minimum of two days before Commencement of Construction Activities.

3.03 CERTIFICATION REQUIREMENTS

A. Fill out TPDES Operator's Information form, SEE ATTACHMENT of this Section 01410, including Contractor's name, address, and telephone number, and the names of persons or firms responsible for maintenance and inspection of erosion and sediment control measures. Use multiple copies as required to document full information.

B. Contractor and Subcontractors shall sign and date the Contractor's / Subcontractor's Certification for TPDES Permitting, SEE ATTACHMENT 4 this Section 01410.

C. Submit properly completed certification forms to Engineer for review before beginning construction operations.

D. Conduct inspections in accordance with TCEQ requirements. Ensure persons or firms responsible for maintenance and inspection of erosion and sediment control measures read, fill out, sign, and date the Erosion Control Contractor's Certification for Inspection and maintenance. Use the EPA NPDES Construction Inspection Form, SEE ATTACHMENT of this Section 01410; and the Owner's Storm Water Pollution Prevention Plan Construction Site Inspection Report, SEE ATTACHMENT of this Section 01410 to record maintenance inspections and repairs.

3.04 RETENTION OF RECORDS

A. Keep a copy of this document and the SWP3 in a readily accessible location at the construction site from Commencement of Construction Activity until submission of the Notice of Termination (NOT) for Storm Water Discharges Associated with Construction Activity under TPDES Construction General Permit (TXR 150000) to TCEQ. Contractors with day-to-day operational control over SWP3 implementation shall have a copy of the SWP3 available at a central location, on-site, for the use of all operators and those identified as having responsibilities under the SWP3. Upon submission of the NOT, to TCEQ submit a copy of the SWP3 with all revisions to Engineer.

3.05 REQUIRED NOTICES

A. Post the following notices from effective date of the SWP3 until date of final site stabilization as defined in the Construction General Permit:

1. Post the TPDES permit number for Large Construction Activity, or a signed TCEQ Construction Site Notice for Small Construction Activity. Signed copies of the Owner's

and Contractor's NOI must also be posted.

2. Post notices near the main entrance of the construction site in a prominent place for public viewing. Post name and telephone number of Contractor's local contact person, brief project description and location of the SWP3.

   a. If posting near a main entrance is not feasible due to safety concerns, coordinate posting of notice with Project Manager to conform to requirements of the Construction General Permit.

   b. If Project is a linear construction project (e.g.: road, utilities, etc.), post notice in a publicly accessible location near active construction. Move notice as necessary.

3. Post a notice to equipment and vehicles operators, instructing them to stop, check, and clean tires of debris and mud before driving onto traffic lanes. Post at each stabilized construction exit area.

4. Post a notice of waste disposal procedures in a readily visible location on site.

3.06 ON-SITE WASTE MATERIAL STORAGE

A. On-site waste material storage shall be self-contained and shall satisfy appropriate local, state, and federal rules and regulations.

B. Prepare list of waste material to be stored on-site. Update list as necessary to include up-to-date information. Keep a copy of updated list with the SWP3.

C. Prepare description of controls to reduce pollutants generated from on-site storage. Include storage practices necessary to minimize exposure of materials to storm water, and spill prevention and response measures consistent with best management practices. Keep a copy of the description with the SWP3.

3.08 NOTICE OF TERMINATION

A. Submit a NOTE, ATTACHMENT 7 of this Section 01410, to Project Manager within 30 days after:

1. Final stabilization has been achieved on all portions of the site that are the responsibility of the Contractor; or

2. Another operator has assumed control over all areas of the site that have not been stabilized; and

3. All silt fences and other temporary erosion controls have either been removed, scheduled to be removed as defined in the SWP3, or transferred to a new operator if the new operator has sought permit coverage.

B. Project Manager will complete Owner's NOT and submit Contractor and Owner's notices to the TCEQ and MS4 entities.

END OF SECTION

SECTION 01454

TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Testing laboratory services and Contractor responsibilities related to those services.

1.02 REFERENCES

A. ASTM C 1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.

B. ASTM D 3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials.

C. 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.

D. ASTM E 329 - Standard Specification for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.

E. ISO/TEC Guide 25 - General Requirements for the Competence of Calibration and Testing Laboratories.

1.03 SELECTION AND PAYMENT

A. The Owner will select, employ, and pay for services of an independent testing laboratory to perform inspection and testing identified in individual Specification sections.

C. Employment of a testing laboratory by the Owner shall not relieve Contractor of its obligation to perform work in accordance with requirements of Contract documents.

D. The Owner will deduct a minimum two-hour charge for testing laboratory time from periodic progress payment when operations requiring testing or inspection are canceled without prior notification.

E. The Owner will deduct cost of retesting from periodic progress payment whenever failed work is removed, replaced and retested.

1.04 QUALIFICATION OF LABORATORY

A. Meet laboratory requirements of ASTM E 329 and applicable requirements of ASTM C 1077, ASTM D 3666, and ASTM D 3740.

B. Meet ISO/TEC Guide 17025 conditions for accreditation by the American

Association for Laboratory Accreditation (A2LA) in specific fields of testing required in individual Specification sections.

C. If laboratory subcontracts are part of the testing services, such work will be placed with a laboratory complying with the requirements of this Section.

1.05 LABORATORY REPORTS

A. Testing laboratory shall provide and distribute copies of laboratory reports to the distribution list Engineer provides at the pre-construction conference.

B. Keep one copy of each laboratory report distributed or faxed at the site field office for duration of the Work.

C. Laboratory will fax material supplier, Contractor and Engineer reports that indicate failing test results by no later than close of business on the working day following test completion and review.

1.06 LIMITS ON TESTING LABORATORY AUTHORITY

A. Laboratory may not release, revoke, alter, or enlarge requirements of the Contract.

B. Laboratory may not approve or accept any portion of the Work.

C. Laboratory may not assume Contractor duties.

D. Laboratory has no authority to stop the Work.

1.07 CONTRACTOR RESPONSIBILITIES

A. Provide safe access to the Work and to manufacturer's facilities for Engineer and for testing laboratory personnel.

B. Provide testing laboratory with a copy of the Construction Schedule and a copy of each update to Construction Schedule.

C. Notify Engineer and testing laboratory during normal working hours of the day previous to expected time for operations requiring inspection and testing services. When Contractor fails to make timely prior notification, do not proceed with the operations requiring inspection and testing services.

D. Request and monitor testing as required to provide timely results and to avoid delays to the Work. Provide samples to laboratory in sufficient time to allow required test to be performed in accordance with specified test methods before intended use of the Product.

E. Cooperate with laboratory personnel in collecting samples on site. Provide incidental labor and facilities for safe access to the Work to be tested, to obtain and handle samples at site or at source of Products to be tested, and

to facilitate tests and inspections including storage and curing of test samples.

G. Make arrangements with laboratory through Engineer.

1. Re-testing required for failed tests.

2. Re-testing for nonconforming work.

3. Additional sampling and tests requested beyond specified requirements.

4. Insufficient notification of cancellation of tests for work scheduled but not performed.

PART 2 P R O D U C T S - Not Used

PART 3 E X E C U T I O N

3.01 CONDUCTING TESTING

A. Conform to laboratory sampling and testing methods specified in individual Specification sections to the latest issues of ASTM standards, TxDOT methods, or other recognized test standards as approved by Project Manager.

B. Requirements of this Section shall also apply to those tests for approval of materials, for mix designs, and for quality control of materials as performed by employed testing laboratories.

END OF SECTION - 01454

Section 01502

MOBILIZATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Mobilization of construction equipment and facilities onto the site.

1.02 MEASUREMENT & PAYMENT

A. Measurement and payment for mobilization is on a stipulated price basis.

B. Mobilization payments will be made in accordance with the following provisions:

1. Authorization for payment of 50 percent of the Contract Price for mobilization will be made upon receipt and approval by Engineer of the following items, as applicable:

   a. Establishment of the field office for the Resident Project Representative where an office is required by other Sections;
   b. Establishment of the Contractor's office;.
   c. Establishment of Contractor's material and equipment storage areas (as evidenced by executed leases or rental agreement); and.
   d. Issuance of Notice to Proceed by Engineer to Contractor..

2. Authorization for payment of the remaining fifty (50) percent of the Contract Price for mobilization will be made upon completion of Work amounting to five (5) percent of the Contract Price less the mobilization unit price.

C. Mobilization payments will be subject to retainage amounts stipulated in the General Conditions.

D. All cost difference between the stipulated amount and the actual cost of the initial mobilization and the cost of all subsequent mobilization shall be included in the various other prices bid.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01504

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Temporary facilities and necessary controls for the Project, including utilities, telephone, sanitary facilities, storage sheds and building, safety requirements, first aid equipment, fire protection, security measures, protection of the Work and property, access roads and parking, environmental controls, pest and rodent control and disposal of trash, debris and excavated material.

B. Facilities and controls specified in this section are considered minimum for the Project. Provide additional facilities and controls for proper execution of the Work and to meet Contractor's responsibilities for protection of persons and property.

1.02 CONTRACTOR'S RESPONSIBILITY

A. Comply with applicable requirements specified in other sections of the Specifications.

1. Maintain and operate temporary facilities and systems to assure continuous service.

2. Modify and extend systems as the Work progress requires.

3. Completely remove temporary materials and equipment when no longer required.

4. Restore existing facilities used for temporary services to specified or original condition.

PART 2 P R O D U C T S - NOT USED

PART 3 E X E C U T I O N

3.01 TEMPORARY UTILITIES

A. Obtaining Temporary Service:

1. Make arrangements with utility service companies for temporary services.

2. Abide by rules and regulations of the utility service companies or authorities having jurisdiction.

3. Responsible for utility service costs until Date of Substantial Completion. Included are fuel, power, light, heat, and other utility services necessary for execution, completion, testing, and initial operation of the Work.

B. Water:

1. Provide water required for and in connection with work to be performed and for specified tests of piping, equipment, devices, or for other use as required for proper completion of the Work.

2. Water to be drawn from public fire hydrants. Obtain transit meter from Owner. Pay required deposit based on rates established by latest ordinance.

3. Provide and maintain an adequate supply of potable water for domestic

consumption by Contractor personnel, Engineer and representatives of the Owner.

C. Electricity and Lighting:

1. Provide electric power service required for the Work including required testing, lighting, operation of equipment, and other Contractor use.

2. Electric power service includes temporary power or generators required to maintain plant operations during scheduled shutdowns.

3. Minimum lighting level shall be 10 foot-candles for open areas; 20-foot-candles for stairs and shops. Provide a minimum of one 300-watt lamp for each 200 square feet of work area.

D. Temporary Heat and Ventilation:

1. Provide temporary heat necessary for protection or completion of the Work.

2. Provide temporary heat and ventilation to assure safe working conditions; maintain enclosed areas at a minimum of 50 degrees F.

E. Telephone:

1. Provide emergency telephone service at Project site for use by Contractor personnel and others performing work or furnishing services at the site.

F. Sanitary Facilities:

1. Provide and maintain sanitary facilities for persons on the site; comply with regulations of State and local departments of health.

2. Enforce use of sanitary facilities by construction personnel at site. Enclose sanitary facilities. Pit-type toilets are not permitted. No discharge will be allowed from these facilities. Collect and store sewage and waste so as not to cause nuisance or health problems. Haul sewage and waste off-site and properly dispose in accordance with applicable regulations.

3. Locate toilets near the Work site and secluded from view insofar as possible. Keep toilets clean and supplied throughout the course of the Work.

3.02 STORAGE SHEDS AND BUILDINGS

A. Provide adequately ventilated, watertight storage facilities with floor above ground level for Products susceptible to weather damage.

B. Storage of Products not susceptible to weather damage may be on blocks off the ground.

C. Store Products in a neat and orderly manner. Place Products to permit easy access for identification, inspection and inventory.

D. Fill and grade site for temporary structures to provide drainage away from temporary and existing buildings.

3.03 SAFETY REQUIREMENTS

A. Submit a safety program at the pre-construction meeting and follow the Program. Include documented response to trench safety requirements of Section 02260 - Trench Safety

System.

B. Conduct operations in strict accordance with applicable Federal, State and local safety codes and statutes and with good construction practice. Establish and maintain procedures for safety of all work, personnel and equipment involved in the Work.

C. Observe and comply with Texas Occupational Safety Act (Art. 5182a, V.C.S.) and with all safety and health standards promulgated by Secretary of Labor under Section 107 of Contract Work Hours and Standards Act, published in 29 CFR Part 1926 and adopted by Secretary of Labor as occupational safety and health standards under Williams-Steiger Occupational Safety and Health Act of 1970, and to other legislation enacted for safety and health of Contractor employees. Safety and health standards apply to Subcontractors and Suppliers as well as to the Contractor.

D. Observance of and compliance with safety regulations is Contractor's responsibility without reliance or superintendence of or direction by Engineer. Immediately advise Engineer of investigation or inspection by Federal Safety and Health inspectors of Contractor's or Subcontractor's work or place of work on site under the Contract, and after investigation or inspection, advise Engineer of results. Submit one copy of accident reports to Engineer within 10 days of occurrence.

E. Protect areas occupied by workmen using the best available devices for detection of lethal and combustible gases. Test devices frequently to assure functional capability. Constantly observe infiltration of liquids into the Work area for visual or odor evidence of contamination, and immediately take appropriate steps to seal off entry of contaminated liquids to the Work area.

F. Implement safety measures, including but not limited to safety personnel, first-aid equipment, ventilating equipment and other safety equipment specified or detailed on Drawings.

G. Maintain required coordination with City Police and Fire Departments during entire period covered by the Contract.

H. Include Project safety analysis in safety plan. Itemize major tasks and potential safety hazards. Plan to eliminate hazards or protect workers and public from each hazard.

3.04 FIRST AID EQUIPMENT

A. Provide a first aid kit throughout the construction period. List telephone numbers for physicians, hospitals, and ambulance services in each first aid kit.

B. Have at least one person thoroughly trained in first aid and CPR procedures present on the site when work is in progress. Contractor to conform to protocols and requirements for training and protection against "blood borne pathogens".

3.05 FIRE PROTECTION

A. Conform to specified fire protection and prevention requirements established by Federal, State, or local governmental agencies and as provided in Safety Program.

3.06 SECURITY MEASURES

A. Protect the Work, materials, equipment, and property from loss, theft, damage, or vandalism. Protect Owner property used in performance of the Contract.

B. If existing fencing or barriers are breached or removed for purposes of construction, provide and maintain temporary security fencing equal to existing.

3.07 PROTECTION OF UTILITIES AND PIPELINES

A. Prevent damage to existing public utilities during construction. Approximate locations of known utilities are shown on Drawings, but all lines may not be shown. Excavate with caution and repair lines damaged by construction operations.

B. Use the Utility Coordinating Committee One Call System which must be called 48 hours in advance. The toll free telephone number is 1-800-669-8344, Texas One Call System.

C. Before excavating, locate underground utilities by appropriate means including the use of metal detection equipment, and probes, or by excavation or surveys. Repair damage caused by investigative work and by failure to locate or to preserve underground utilities.

D. Give utility owners a minimum five days notice before commencing excavation to allow time to locate utilities and make adjustments or relocations when they conflict with the Work. Include cost for temporary relocation of water, wastewater, and storm drainage lines, necessary to accommodate construction, in unit prices for utility construction unless otherwise noted. Bypassing of sanitary waste to storm drainage facilities is not allowed.

E. Prior to excavation near pipelines, request a representative of the pipeline company to meet with Contractor to locate the pipelines of proposed utility.

3.08 PROTECTION OF THE WORK AND PROPERTY

A. Preventive Actions

1. Take necessary precautions and actions to prevent damage, injury, or loss to the Work or public and private property, including:

a. Storage of apparatus, supplies, and Products in an orderly, safe manner to limit interference with progress of the Work or work of other contractors, utility service companies, or the Owner's operations.

b. Suitable storage for Products subject to damage by exposure to weather, theft, breakage, etc.

c. Limitation of loading pressures imposed upon portions of the Work.

d. Frequent clean up of refuse, scrap materials, and debris from construction operations, necessary to maintain the site in a safe and orderly condition.

e. Provision of barricades and guard rails to protect pedestrian and traffic around openings, scaffolding, temporary stairs and ramps, excavations, elevated walkways, and other hazardous areas.

2. Protect public and private property adjacent to the site. Obtain written consent before entering or occupying privately-owned land except on easements provided for construction. Restore property damaged by construction operations to condition equal to or better than that existing before the damage.

B. Barricades and Warning Systems

1. Where work is performed on or adjacent to roadways, rights-of-ways, or public land, provide barricades, fences, lights, warning signs, danger signals, and other precautionary measures necessary for protection of persons or property and for protection of the Work.

    a. Erect sufficient barricades to keep vehicles and pedestrians from entering the Work. Paint barricades to be visible at night. From sunset to sunrise, provide at least one light at each barricade.

    b. Maintain barricades, signs, lights, and provide watchmen until Engineer approves removal. Whenever work creates encroachment onto public roadways, station flagmen to manage traffic flow in accordance with approved traffic control plan.

    c. Conform to requirements of section 01555 - Traffic Control and regulation.

C. Protection of Existing Structures

1. Underground Facilities:

    a. Known Underground Facilities are shown on the Drawings but all Facilities may not be shown. Explore sufficiently ahead of trenching and excavation work to locate Underground Facilities in order to prevent damage to them and to prevent interruption of utility services. Restore damage to Underground Facilities to original condition at no additional cost to the Owner.

    b. If necessary to avoid unanticipated Underground Facilities, Engineer may make changes in location of the Work.

    c. If permanent relocation of an Underground Facility is required and not provided for in the Contract documents, Engineer will direct Contractor in writing to perform the Work.

2. Surface Structures include buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks, guard cables, fencing, and other facilities that are visible above the ground level.

3. Protection of Underground Facilities and Surface Structures:

    a. Support in place and protect Underground Facilities and Surface Structures located within or adjacent to the limits of the Work from damage. Install supports as required by the owner of the structure. Satisfy Engineer that the owner of the facility or structure has approved methods and procedures before installing structure supports.

    b. Avoid moving or changing public utility or private corporation property without prior written consent of a responsible official of the facility or structure. Allow representatives of utilities to enter the construction site for maintenance and repair purposes or to make necessary changes.

    c. Notify utility and pipeline owners and operators of the nature of construction operations and dates when operations will be performed. When construction operations are required in immediate vicinity of existing structures, pipelines, or utilities, give a minimum of five working

days advance notice. Probe and flag location of Underground Facilities prior to commencement of excavation. Keep flags in place until construction operations uncover the facility.

d. Assume risk for damages and expenses to Underground Facilities and Surface Structures within or adjacent to the Work.

e. Employ a structural engineer to ensure protection measures are adequate for the safety and integrity of structures and facilities.

E. Protection of Installed Products:

1. Provide protection of Installed Products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of the Work.

2. Control traffic to prevent damage to Products and surfaces.

3. Provide coverings to protect Products from damage. Cover projections, wall corners, jambs, sills, and exposed sides of openings in areas used for traffic and passage of materials in subsequent work.

3.09 ROADS AND PARKING

A. Prevent interference with traffic and operations of the Owner on existing roads.

B. Designate temporary parking areas to accommodate construction and Owner personnel. When site space is not adequate, provide additional off-site parking.

C. Minimize use by construction traffic on existing streets and driveways.

D. Do not allow heavy vehicles or construction equipment in existing parking areas.

3.10 ENVIRONMENTAL CONTROLS

A. Use methods, equipment, and temporary construction necessary for control of environmental conditions at the site and adjacent areas.

B. Comply with statutes, regulations, and ordinances relating to prevention of environmental pollution and preservation of natural resources including National Environmental Policy Act of 1969, PL 91-190, Executive Order 11514.

C. Minimize impact to the surrounding environment. Do not use construction procedures that cause unnecessary excavation and filling of terrain, indiscriminate destruction of vegetation, air or stream pollution, or harassment or destruction of wildlife.

D. Limit disturbed areas to boundaries established by the Contract. Do not pollute on-site streams, sewers, wells, or other water sources.

E. Do not burn rubbish, debris or waste materials.

3.11 POLLUTION CONTROL

A. Provide methods, means, and facilities necessary to prevent contamination of soil, water or the atmosphere by discharge of Pollutants from construction operations.

B. Provide equipment and personnel to perform emergency measures to contain spillage, and to remove contaminated soils or liquids. Excavate and dispose of contaminated earth off-site in accordance with laws and regulations, and replace with suitable compacted fill

and topsoil.

C. Provide systems necessary for control of Pollutants.

1. Prevent toxic concentrations of chemicals.

2. Prevent harmful dispersal of Pollutants into the environment.

D. Use equipment that conforms to current Federal, State, and local laws and regulations.

3.12 PEST AND RODENT CONTROL

A. Provide rodent and pest control as necessary to prevent infestation of construction or storage areas.

B. Employ methods and use materials that will not adversely affect conditions at site or on adjoining properties.

3.13 NOISE CONTROL

A. Provide vehicles, equipment, and use construction activities that minimize noise to the greatest degree practicable. Conform to noise levels of Chapter 30 -Noise and Sound Level Regulation, City Code of Ordinances, and latest OSHA standards. Do not permit noise levels to interfere with the Work or create a nuisance to surrounding areas.

B. Conduct construction operations during daylight hours except as approved by Engineer.

C. Select construction equipment that operates with minimum noise and vibration. When directed by Engineer, correct objectionable noise or vibration produced by operation of equipment at no additional cost to the Owner. Sound Power Level (PWL) of equipment shall not exceed 85 dbA (re: 10-12 watts) measured five feet from the equipment, or at a lower level if prescribed by City Ordinances. Equipment noise requirements are contained in equipment specifications.

3.14 DUST CONTROL

A. Use water or other methods approved by Engineer to control amount of dust generated by vehicle and equipment operations.

3.15 WATER RUNOFF AND EROSION CONTROL

A. Comply with requirements of Section 01410 - TPDES Requirements.

B. Conduct fill, grading and ditching operations and provide adequate methods necessary to control surface water, runoff, subsurface water, and water from excavations and structures in order to prevent damage to the Work, the site, or adjoining properties.

1. Plan and execute construction and earthwork by methods that control surface drainage from cuts and fills, and from borrow and waste disposal areas.

2. Minimize area of bare soil exposed at one time.

3. Provide temporary control measures, such as berms, dikes, and drains.

4. Provide, operate, and maintain equipment and facilities of adequate size to control surface water.

5. Construct fill and waste areas by selective placement of materials to eliminate erosion of surface silts or clays that may erode.

6. Direct water away from excavations, pits, tunnels, and other construction areas to prevent erosion, sedimentation or damage.

7. Maintain existing drainage patterns adjacent to the site by constructing temporary earth berms, sedimentation basins, retaining areas, and temporary ground cover.

8. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to the site or adjoining areas, in conformance with environmental requirements.

9. Inspect earthwork periodically to detect any evidence of erosion. Take corrective measures as required to control erosion.

END OF SECTION - 01504

SECTION 01555

TRAFFIC CONTROL AND REGULATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Requirements for signs, signals, control devices, traffic barriers, flares, lights and traffic signals; construction parking control, designated haul routes, and bridging of trenches and excavations.

B. Qualifications and requirements for use of flagmen.

1.02 MEASUREMENT AND PAYMENT

A. Unit Price Contracts.

1. Traffic control and regulation. Payment for traffic control and regulation is on a lump sum basis. Include preparation and submittal of traffic control plan if different than shown on Drawings, and provision of traffic control devices, equipment, and personnel necessary to protect the Work and public. Payment will be based on Contractor's Schedule of Values for traffic control and regulation.

1.03 REFERENCES

A. Texas Manual on Uniform Traffic Control Devices (TMUTCD)

B. Article 4413 (29bb), commonly referred to as Private Investigators and Private Security Agencies Act, and Article 2.12, Texas Code of Criminal Procedure.

1.04 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittal Procedures.

B. Traffic control plan:

1. If using traffic control plan contained in the Contract without modification, submit a letter confirming use of the plan.

2. If using a different traffic control plan, submit the plan for approval. The plan must conform to TMUTCD requirements and be sealed by a Registered Texas Professional Engineer.

PART 2 P R O D U C T S

2.01 SIGNS, SIGNALS, AND DEVICES

A. Comply with TMUTCD requirements.

B. Traffic cones and drums, flares and lights: Conform to local jurisdictions' requirements.

C. When working in the Central business district, provide pedestrian pathway signage approved by the Owner's Traffic Engineering Branch.

2.02 PORTABLE LOW PROFILE CONCRETE BARRIERS

A. The low profile concrete barrier is a patented design. Information concerning this barrier may be obtained from Texas Transportation Institute, Texas A&M University System, College Station, Texas 77843-3135, (409) 845-1712.

PART 3 EXECUTION

3.01 PUBLIC ROADS

A. Submit requests forms for lane closure and sidewalk closure to the City at least three working days prior to need for blocking vehicular lanes or sidewalks. Do not block lanes or sidewalks without approved permits.

B. Follow laws and regulations of governing jurisdictions when using public roads. Pay for and obtain permits from jurisdiction before impeding traffic or closing lanes. Coordinate activities with the City.

C. Give Engineer one-week notice before implementing approved traffic control phases. Inform local businesses of impending traffic control activities.

D. Notify police department, fire department, METRO, and local schools, churches, and businesses in writing a minimum of five business days prior to beginning work.

E. Maintain 10-foot-wide all-weather lanes adjacent to the Work for emergency vehicle use. Keep all-weather lanes free of construction equipment and debris.

F. Do not to obstruct normal flow of traffic from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. on designated major arterials.

G. Maintain local driveway access to residential and commercial properties adjacent to work areas at all times. Use all-weather materials approved by Engineer to maintain temporary driveway access to commercial and residential driveways.

H. Keep streets entering and leaving job site free of excavated material, debris, and foreign material resulting from construction operations in compliance with applicable ordinances.

I. Remove existing signage and striping that conflict with construction activities or that may cause driver confusion.

J. Provide safe access for pedestrians along major cross streets.

K. Alternate closures of cross streets so that two adjacent cross streets are not closed simultaneously.

3.02 CONSTRUCTION PARKING CONTROL

A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and the Owner's operations.

B. Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.

C. Prevent parking on or adjacent to access roads or in non-designated areas.

3.03 FLARES AND LIGHTS

A. Provide flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.04 HAUL ROUTES

A. Utilize haul routes designated by authorities or shown on Drawings for construction traffic.

B. Confine construction traffic to designated haul routes.

C. Provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.

3.05 TRAFFIC CONTROL, REGULATION AND DIRECTION

A. Use Flagmen to control, regulate and direct an even flow and movement of vehicular and pedestrian traffic, for periods of time as may be required to provide for public safety and convenience, where:

1. multi-lane vehicular traffic must be diverted into single lane vehicular traffic,

2. vehicular traffic must change lanes abruptly,

3. construction equipment must enter or cross vehicular traffic lanes and walks,

4. construction equipment may intermittently encroach on vehicular traffic lanes and unprotected walks and crosswalks,

5. traffic regulation is needed due to rerouting of vehicular traffic around the Work site, and

6. where construction activities might affect public safety and convenience.

B. Use of Flagmen to assist in the regulation of traffic flow and movement does not relieve Contractor of responsibility to take other means necessary to protect the Work and public.

3.06 INSTALLATION STANDARDS

A. Place temporary pavement for single lane closures, in accordance with TMUTCD.

B. Reinstall temporary and permanent pavement markings as approved by Engineer. When weather conditions do not allow application according to manufacturer's requirements, alternate markings may be considered. Submit proposed alternate to Engineer for approval prior to installation. No additional payment will be made for use of alternate markings.

END OF SECTION - 01555

SECTION 01570

STORM WATER POLLUTION CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Implementation of Storm Water Pollution Prevention Plans (SWP3) described in Section 01410 - TPDES Requirement.

B. Installation and maintenance of storm-water pollution prevention structures: diversion dikes, interceptor dikes, diversion swales, interceptor swales, down spout extenders, pipe slope drains, paved flumes and level spreaders. Structures are used during construction and prior to final development of the site.

C. Filter Fabric Fences:

1. Type 1: Temporary filter fabric fences for erosion and sediment control in non-channelized flow areas.

2. Type 2: Temporary reinforced filter fabric fences for erosion and sediment control in channelized flow areas.

D. Straw Bale Fence.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for filter fabric fence if included in Bid Form is on a linear foot basis measured between limits of beginning and ending of stakes.

2. Payment for reinforced filter fabric fence if included in Bid Form is on a linear foot basis measured between limits of beginning and ending of stakes.

3. Payment for drop inlet baskets if included in Bid Form is on a unit price basis for each drop inlet basket.

4. Payment for storm inlet sediment traps if included in Bid Form is on a unit price basis for each storm inlet sediment trap.

5. Payment for storm-water-pollution-prevention structures if included in Bid Form is on a lump sum basis for the project. Earthen structures with outlet and piping includes diversion dikes, interceptor dikes, diversion swales, interceptor swales, and excavated earth-outlet sediment trap, embankment earth-outlet sediment trap, down spout extenders, pipe slope drains, paved flumes, stone outlet sediment trap, and level spreaders.

6. Payment for straw bale barrier, if included in Bid Form, is on a linear foot of accepted bale barriers, if not include in cost of storm-water-pollution-prevention structures.

7. Payment for brush berm, if included in Bid Form, is on a linear foot of accepted rush berm, if not include in cost of storm water-pollution-prevention structures.

8. Payment for sandbag barrier, if included in Bid Form, is on a linear foot basis measured between limits of beginning and ending of sandbags, if not include in

cost of storm-water-pollution prevention structures.

9. Payment for sediment basin with pipe outlet or stone outlet, if included in Bid Form, is on a square yard basis, if not include in cost of storm-water-pollution-prevention structures.

10. Payment for inlet protection barriers, if included in Bid Form, is on a linear foot basis measured along outside face of inlet protection barrier, if not include in cost of storm-water-pollution prevention structures.

11. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum) Contract. If Contract is Stipulated Price Contract, payment for Work in this Section is included in total Stipulated Price.

1.03 REFERENCE STANDARDS

A. ASTM

1. A 36 - Standard Specification for Carbon Structural Steel.

2. D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).

3. D3786 - Standard Test Method for Hydraulic Bursting Strength for Knitted Goods and Nonwoven Fabrics.

4. D 4355 - Standard Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus).

5. D 4491 - Standard Test Methods for Water Permeability of Geotextiles by Permittivity.

6. D 4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.

7. D 4833 - Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products.

8. D 6382 - Standard Practice for Dynamic Mechanical Analysis and Thermogravimetry of Roofing and Waterproofing Membrane Material.

1.04 SYSTEM DESCRIPTIONS

A. Filter Fabric Fence Type 1 and Type 2: Install to allow surface or channel runoff percolation through fabric in sheet-flow manner and to retain and accumulate sediment. Maintain Filter Fabric Fences to remain in proper position and configuration at all times.

B. Straw Bale Fence: Install to allow surface runoff percolation through straw in sheet-flow manner and to retain and accumulate sediment. Maintain Straw Bale Fence to remain in proper position and configuration at all times.

C. Interceptor Dikes and Swales: Construct to direct surface or channel runoff around the project area or runoff from project area into sediment traps.

D. Drop Inlet Baskets: Install to allow runoff percolation through the basket and to retain and accumulate sediment. Clean accumulation of sediment to prevent clogging and backups.

E. Sediment traps: Construct to pool surface runoff from construction area to allow sediment to settle onto the bottom of trap.

1.05 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittal Procedures.

B. Submit manufacturer's literature for product specifications and installation instructions.

C. Submit manufacture's catalog sheets and other product data on geotextile or filter fabrics, outlet pipe, perforated riser and connectors.

D. Submit proposed methods, equipment, materials, and sequence of operations for storm-water pollution prevention structures.

E. Submit shop drawings for Drop Inlet Baskets.

PART 2 P R O D U C T S

2.01 CONCRETE

A. Concrete: Class B in accordance with Section 03315 - Concrete for Utility Construction or as shown on the Drawings.

2.02 AGREGATE MATERIALS

A. Use poorly graded cobbles with diameter greater than 3 inches and less than 5 inches.

B. Provide gravel lining in accordance with Section 2320 - Utility Backfill Materials or as shown on the drawings.

C. Provide clean cobbles and gravel consisting of crushed concrete or stone. Use clean, hard crushed concrete or stone free from adherent coatings, salt, alkali, dirt, clay, loam, shale, soft or flaky materials, or organic matter.

D. Sediment Pump Pit Aggregate: Use nominal 2-inch diameter river gravel.

2.03 GEOTEXTILE FILTER FABRIC

A. Woven or nonwoven geotextile filter fabric made of either polypropylene, polyethylene, ethylene, or polyamide material, in continuous rolls of longest practical length.

B. Grab Strength: 100 psi in any principal direction (ASTM D-4632), Mullen burst strength >200 psi (ASTM D-3786), and equivalent opening size between 50 and 140.

C. Furnish ultraviolet inhibitors and stabilizers for minimum 6 months of expected usable construction life at temperature range of 0 degrees F to 120 degrees.

D. Mirafi, Inc., Synthetic Industries, or equivalent

2.05 FENCING

A. Wire Fencing: Woven galvanized steel wire, 14 gauge by 6-inch square mesh spacing, minimum 24 inch roll or sheet width of longest practical length.

B. Fence Stakes: Nominal 2 by 2 inch moisture-resistant treated wood or steel posts (min. of 1.25 lbs. per linear foot and Brinell Hardness greater than 140) with safety caps on top; length as required for minimum 8 inch bury and full height of filter fabric.

2.06 SANDBAGS

A. Provide woven material made of polypropylene, polyethylene, or polyamide material.

1. Minimum unit weight of four ounces per square yard.

2. Minimum grab strength of 100 psi in any principal direction (ASTM D4632).

3. Mullen burst strength exceeding 300 psi (ASTM D3786).

4. Ultraviolet stability exceeding 70 percent.

5. Size: Length:18 to 24 inches. Width: 12 to 18 inches. Thickness: 6 to 8 inches. Weight: 50 to 125 pounds.

2.07 DROP INLET BASKET

A. Provide steel frame members in accordance with ASTM A36.

B. Construct top frame of basket with two short sides of 2 inch by 2 inch and single long side of 1 inch by 1 inch, 1/8 inch angle iron. Construct basket hangers of 2 inch by 1/4 inch iron bars. Construct bottom frame of 1 inch by 1/4 inch iron bar or 1/4 inch plate with center 3 inches removed. Use minimum 1/4 inch diameter iron rods or equivalent for sides of inlet basket. Weld minimum of 14 rods in place between top frame/basket hanger and bottom frame. Exact dimensions for top frame and insert basket will be determined based on dimensions of type of inlet being protected.

2.08 STRAW BALE

A. Straw: Standard-baled agricultural hay bound by wire, nylon, or polypropylene rope. Do not use jute or cotton binding.

B. Straw Bale Stakes (applicable where bales are on soil): No. 3 (3/8 diameter) reinforcing bars, deformed or smooth at Contractor's option, length as required for minimum 18 inch bury and full height bales.

PART 3 E X E C U T I O N

3.01 PREPARATION, INSTALLATION AND MAINTAINANCE

A. Provide erosion and sediment control structures at locations shown on the Drawings.

B. Do not clear, grub or rough cut until erosion and sediment control systems are in place unless approved by Engineer to allow installation of erosion and sediment control systems, soil testing and surveying.

C. Maintain existing erosion and sediment control systems located within project site until acceptance of Project or until directed by Engineer to remove and discard existing system.

D. Regularly inspect and repair or replace damaged components of erosion and sediment control structures. Unless otherwise directed, maintain erosion and sediment control structure until project area stabilization is accepted. Redress and replace granular fill at outlets as needed to replenish depleted granular fill. Remove erosion and sediment control structures promptly when directed by Engineer.

E. Remove and dispose sediment deposits at the designated spoil site for the Project. If a project spoil site is not designated on Drawings, dispose of sediment off site at approved location.

F. Unless otherwise shown on the Drawings, compact embankments, excavations, and trenches in accordance with Section 02317 Excavation and Backfill for Utilities.

G. Prohibit equipment and vehicles from maneuvering on areas outside of dedicated right of way and easements for construction. Immediately repair damage caused by construction traffic to erosion and sediment control structures.

H. Protect existing trees and plants.

SEDIMENT TRAPS

A. Install sediment traps so that surface runoff shall percolate through system in sheet flow fashion and allow retention and accumulation of sediment.

B. Inspect sediment traps after each rainfall, daily during periods of prolonged rainfall, and at a minimum once each week. Repair or replace damaged sections immediately.

C. Use fill material for embankment in accordance with Section 02320 - Utility Backfill Materials.

D. Excavation length and height shall be as specified on Drawings. Use side slopes of 2:1 or flatter.

E. Stone outlet sediment traps:

1. Maintain minimum of 6 inches between top of core material and top of stone outlet, minimum of 4 inches between bottom of core material and existing ground and minimum of 1 foot between top of stone outlet and top of embankment.

2. Embed cobbles minimum of 4 inches into existing ground for stone outlet. Core shall be a minimum of 1 foot in height and in width and wrapped in triple layer of geotextile filter fabric.

F. Sediment Basin with Pipe Outlet Construction Methods: Install outlet pipe and riser as shown on the Drawings.

G. Remove sediment deposits when design basin volume is reduced by one third or sediment level is one foot below principal spillway crest, whichever is less.

3.03 FILTER FABRIC FENCE CONSTRUCTION METHODS

A. Fence Type 1:

1. Install stakes 3 feet on center maximum and firmly embed minimum 8 inches in soil. If filter fabric is factory preassembled with support netting, then maximum support spacing is 8 feet. Install wood stakes at a slight angle toward the source of anticipated runoff.

2. Trench in the toe of the fence lines so the downward face of the trenches is flat and perpendicular to direction of flow. V-trench configuration as shown on Drawings may also be used.

3. Lay fabric along edges of trenches in longest practical continuous runs to minimize joints. Make joints only at a support post. Splice with minimum 6-inch overlap and seal securely.

4. Staple filter fabric to stakes at maximum 3 inches on center. Extend fabric minimum 18 inches and maximum 36 inches above natural ground.

5. Backfill and compact trench.

B. Fence Type 2:

1. Layout fence same as for Type 1.

2. Install stakes at 6 feet on center maximum and at each joint in wire fence, firmly embedded 1-foot minimum, and inclined it as for Type 1.

3. Tie wire fence to stakes with wire at 6 inches on center maximum. Overlap joints minimum one bay of mesh.

4. Install trench same as for Type 1.

5. Fasten filter fabric wire fence with tie wires at 3 inches on center maximum.

6. Layout fabric same as for Type 1. Fasten to wire fence with wire ties at 3 inches on center maximum and, if applicable, to stakes above top of wire fence it as for Type 1.

7. Backfill and compact trench.

C. Attach filter fabric to wooden fence stakes spaced a maximum of 6 feet apart or steel fence stakes spaced a maximum of 8 feet apart and embedded a minimum of 12 inches. Install stakes at a slight angle toward source of anticipated runoff.

D. Trench in toe of filter fabric fence with spade or mechanical trencher so that downward face of trench is flat and perpendicular to direction of flow. A V-trench configuration may also be used. Lay filter fabric along edges of trench. Backfill and compact trench upon completion of Construction.

E. Filter fabric fence shall have a minimum height of 18 inches and a maximum height of 36 inches above natural ground.

F. Cut length of fence to minimize use of joints. When joints are necessary, splice fabric together only at support post with minimum 6 inch overlap and seal securely.

G. Triangular Filter Fabric Fence Construction Methods

1. Attach filter fabric to wire fencing, 18 inches on each side. Provide a fabric cover and skirt with continuous wrapping of fabric. Skirt should form continuous extension of fabric on upstream side of fence.

2. Secure triangular fabric filter fence in place using one of the following methods:

   a. Toe-in skirt 6 inches with mechanically compacted material;

   b. Weight down skirt with continuous layer of 3-inch to 5-inch graded rock; or

   c. Trench-in entire structure 4 inches.

3. Anchor triangular fabric filter fence structure and skirt securely in place using 6-inch wire staples on 2-foot centers on both edges and on skirt, or staked using 18-inch by 3/8-inch diameter re-bar with tee ends.

4. Lap fabric filter material by 6 inches to cover segment joints. Fasten joints with galvanized shoat rings.

H. Reinforced Filter Fabric Barrier Construction Methods

1. Attach woven wire fence to fence stakes.

2. Securely fasten filter fabric material to wire fence with tie wires.

3. When used in swales, ditches or diversions, elevation of barrier at top of filter fabric at flow line location in channel shall be lower than bottom elevation of filter fabric at ends of barrier or top of bank, whichever is less, in order to keep storm water discharge in channel from overtopping bank.
4. Remove sediment deposits when silt reaches depth one-third height of barrier or 6 inches, whichever is less.

3.04 DIKE AND SWALE

A. Unless otherwise indicated, maintain minimum dike height of 18 inches, measured from cleared ground at up slope toe to top of dike. Maintain side slopes of 2:1 or flatter.

B. Dike and Swale Stabilization: When shown on the Drawings, place gravel lining 3 inches thick and compacted into the soil or 6 inches thick if truck crossing is expected. Extend gravel lining across bottom and up both sides of swale minimum height of 8 inches vertically, above bottom. Gravel lining on dike side shall extend up the up slope side of dike a minimum height of 8 inches, measured vertically from interface of existing or graded ground and up slope toe of dike, as shown on Drawings.

C. Divert flow from dikes and swales to sediment basins, stabilized outlets, or sediment trapping devices of types and at locations shown on Drawings. Grade dikes and swales as shown on Drawings, or, if not specified, provide positive drainage with maximum grade of 1 percent to outlet or basin.

E. Carry out excavation for swale construction so that erosion and water pollution is minimal. Minimum depth shall be 1 foot and bottom width shall be 4 feet, with level swale bottom. Excavation slopes shall be 2:1 or flatter. Clear, grub and strip excavation area of vegetation and root material.

3.05 DOWN SPOUT EXTENDER

A. Down spout extender shall have slope of approximately 1 percent. Use pipe diameter of 4 inches or as shown on the Drawings. Place pipe in accordance with Section 2317 - Bedding and Backfill for Utilities.

3.06 PIPE SLOPE DRAIN

A. Compact soil around and under drain entrance section to top of embankment in lifts appropriately sized for method of compaction utilized.

B. Inlet pipe shall have slope of 1 percent or greater. Use pipe diameter as shown on the Drawings.

C. Top of embankment over inlet pipe and embankments directing water to pipe shall be at least 1 foot higher at all points than top of inlet pipe.

D. Pipe shall be secured with hold-down grommets spaced 10 feet on centers.

E. Place riprap apron with a depth equal to pipe diameter with 2:1 side slopes.

3.07 PAVED FLUME

A. Compact soil around and under the entrance section to top of the embankment in lifts appropriately sized for method of compaction utilized.

B. Construct subgrade to required elevations. Remove and replace soft sections and unsuitable material. Compact subgrade thoroughly and shape to a smooth, uniform

surface.

C. Construct permanent paved flumes in accordance with Drawings.

D. Remove sediment from riprap apron when sediment has accumulated to depth of one foot.

3.08 LEVEL SPREADER

A. Construct level spreader on undisturbed soil and not on fill. Ensure that spreader lip is level for uniform spreading of storm runoff.

B. Maintain at required depth, grade, and cross section as specified on Drawings. Remove sediment deposits as well as projections or other irregularities which will impede normal flow.

3.09 INLET PROTECTION BARRIER

A. Place sandbags and filter fabric fences at locations shown on the SWP3.

3.10 DROP INLET BASKET CONSTRUCTION METHODS

A. Fit inlet insert basket into inlet without gaps around insert at locations shown on the SWP3.

B. Support for inlet insert basket shall consist of fabricated metal as shown on Drawings.

C. Push down and form filter fabric to shape of basket. Use sheet of fabric large enough to be supported by basket frame when holding sediment and extend at least 6 inches past frame. Place inlet grates over basket/frame to serve as fabric anchor.

D. Remove sediment deposit after each storm event and whenever accumulation exceeds 1-inch depth during weekly inspections.

3.11 STRAW BALE FENCE CONSTRUCTION METHODS

A. Place bales in row with ends tightly abutting adjacent bales. Place bales with bindings parallel to ground surface.

B. Embed bale in soil a minimum of 4 inches.

C. Securely anchor bales in place with Straw Bale Stakes driven through bales a minimum of 18-inches into ground. Angle first stake in each bale toward previously laid bale to force bales together.

D. Fill gaps between bales with straw to prevent water from channeling between bales. Wedge carefully in order not to separate bales.

E. Replace with new straw bale fence every two months or as required by Engineer.

3.12 BRUSH BERM CONSTRUCTION METHODS

A. Construct brush berm along contour lines by hand placing method. Do not use machine placement of brush berm.

B. Use woody brush and branches having diameter less than 2-inches with 6inches overlap. Avoid incorporation of annual weeds and soil into brush berm.

C. Use minimum height of 18-inches measured from top of existing ground at upslope toe to top of berm. Top width shall be 24 inches minimum and side slopes shall be 2:1 or flatter.

D. Embed brush berm into soil a minimum of 4-inches and anchor using wire, nylon or polypropylene rope across berm with a minimum tension of 50 pounds. Tie rope securely to 18-inch x 3/8-inch diameter rebar stakes driven into ground on 4-foot centers on both sides of berm.

3.13 STREET AND SIDEWALK CLEANING

A. Keep areas clean of construction debris and mud carried by construction vehicles and equipment. If necessary, install stabilized construction exits at construction, staging, storage, and disposal areas.

3.14 WASTE COLLECTION AREAS

A. Prevent water runoff from passing through waste collection areas, and prevent water runoff from waste collection areas migrating outside collection areas.

3.15 EQUIPMENT MAINTENANCE AND REPAIR

A. Confine maintenance and repair of construction machinery and equipment to areas specifically designated for that purpose, so fuels, lubricants, solvents, and other potential pollutants are not washed directly into receiving streams or storm water conveyance systems. Provide these areas with adequate waste disposal receptacles for liquid and solid waste. Clean and inspect maintenance areas daily.

B. Where designated equipment maintenance areas are not feasible, take precautions during each individual repair or maintenance operation to prevent potential pollutants from washing into streams or conveyance systems. Provide temporary waste disposal receptacles.

3.16 VEHICLE/ EQUIPMENT WASHING AREAS

A. Install wash area (stabilized with coarse aggregate) adjacent to stabilized construction exit(s), as required to prevent mud and dirt run-off. Release wash water into drainage swales or inlets protected by erosion and sediment controls. Install gravel or rock base beneath wash areas.

B. Wash vehicles only at designated wash areas. Do not wash vehicles such as concrete delivery trucks or dump trucks and other construction equipment at locations where runoff flows directly into watercourses or storm water conveyance systems.

C. Locate wash areas to spread out and evaporate or infiltrate wash water directly into ground, or collect runoff in temporary holding or seepage basins.

3.17 WATER RUNOFF AND EROSION CONTROL

A. Control surface water, runoff, subsurface water, and water from excavations and structures to prevent damage to the Work, the site, or adjoining properties.

B. Control fill, grading and ditching to direct water away from excavations, pits, tunnels, and other construction areas, and to direct drainage to proper runoff courses to prevent erosion, sedimentation or damage.

C. Provide, operate, and maintain equipment and facilities of adequate size to control surface water.

D. Dispose of drainage water to prevent flooding, erosion, or other damage to the site or adjoining areas. Follow environmental requirements.

E. Retain existing drainage patterns external to the site by constructing temporary earth berms, sedimentation basins, retaining areas, and temporary ground cover as required to control conditions.

F. Plan and execute construction and earth work to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.

1. Hold area of bare soil exposed at one time to a minimum.

2. Provide temporary controls such as berms, dikes, and drains.

G. Construct fill and waste areas by selective placement to eliminate surface silts or clays which will erode.

H. Inspect earthwork periodically to detect start of erosion. Immediately apply corrective measures as required to control erosion.

I. Dispose of sediments offsite, not in or adjacent to streams or floodplains, nor allow sediments to flush into streams or drainage ways. Assume responsibility for offsite disposal location.

J. Unless otherwise indicated, compact embankments, excavations, and trenches by mechanically blading, tamping, and rolling soil in maximum of 8 inch layers. Provide compaction density at minimum 90 percent Standard Proctor ASTM D-698-78 density. Make at least one test per 500 cubic yards of embankment.

K. Do not maneuver vehicles on areas outside of dedicated rights-of-way and easements for construction. Immediately repair damage to erosion and sedimentation control systems caused by construction traffic.

L. Do not damage existing trees intended to remain.

3.18 REMOVAL OF CONTROLS

A. Remove erosion and sediment controls when the site is finally stabilized or as directed by Engineer.

B. Dispose of sediments and waste products following Section 01504- Temporary Facilities.

END OF SECTION - 01570

Section 01572

SOURCE CONTROLS FOR EROSION AND SEDIMENTATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description of erosion and sediment control and other control-related practices, which shall be utilized during construction activities.

1.02 UNIT PRICES

A. No separate payment will be made for work performed under this Section. Include cost of work performed under this Section in pay items of which this work is a component.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 PREPARATION AND INSTALLATION

A. No clearing and grubbing or rough cutting shall be permitted until erosion and sediment control systems are in place, other than site work specifically directed by the Resident Project Representative to allow soil testing and surveying.

B. Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Damage caused by construction traffic to erosion and sediment control systems shall be repaired immediately by the Contractor.

C. The Contractor shall be responsible for collecting, storing, hauling, and disposing of spoil, silt, and waste materials as specified in this or other Specifications and in compliance with applicable federal, state, and local rules and regulations.

D. Contractor shall conduct all construction operations under this Contract in conformance with the erosion control practices described in the SWPPP, Drawings, and this Specification.

E. The Contractor shall install, maintain, and inspect erosion and sediment control measures and practices as specified in the SWPPP (if required), Drawings, and in this or other Specifications.

3.02 TOPSOIL PLACEMENT FOR EROSION AND SEDIMENT CONTROL SYSTEMS

A. When topsoil is specified as a component of another Specification, the Contractor shall conduct erosion control practices described in this Specification during topsoil placement operations.

1. When placing topsoil, maintain erosion and sediment control systems, such as swales, grade stabilization structures, berms, dikes, waterways, and sediment basins.

2. Maintain grades which have been previously established on areas to receive topsoil.

3. After the areas to receive topsoil have been brought to grade, and immediately prior to dumping and spreading the topsoil, loosen the subgrade by discing or by scarifying to a depth of at least 2 inches to permit bonding of the topsoil to the subsoil.

4. No sod or seed shall be placed on soil which has been treated with soil sterilants until sufficient time has elapsed to permit dissipation of toxic materials.

3.03 SEDIMENT CONTROL MAINTENANCE

A. All erosion, sediment, and water pollution controls will be maintained in good working order. A rain gauge provided by the Contractor shall be located on the project site. Within 24 hours of a rainfall event of 0.5 inches or more as measured by the project rain gauge, the Contractor and the Resident Project Representative shall inspect the entire project to determine the condition of the control measures. Sediment shall be removed and devices repaired as soon as practicable but no later than 7 days after the surrounding ground has dried sufficiently to prevent further damage from equipment operations needed for repairs.

B. In the event of continuous rainfall over a 24 hour period, or other circumstances that preclude equipment operation in the area, the Contractor shall install additional backup storm water pollution control devices, as determined by the Resident Project Representative, by other appropriate methods. The Contractor shall remove sediment accumulations and deposit the spoils in an area approved by the Resident Project Representative as soon as practical and in accordance with the SWPPP. Any corrective action needed for the control measures is to be accomplished in the sequence directed by the Resident Project Representative; however, areas adjacent to receiving waters shall generally have priority, followed by devices protecting storm sewer inlets.

3.04 DUST CONTROL

A. Implement dust control methods to control dust creation and movement on construction sites and roads and to prevent airborne sediment from reaching receiving streams or storm water conveyance systems, to reduce on-site and off-site damage, to prevent health hazards, and to improve traffic safety.

B. Control blowing dust by using one or more of the following methods:

1. Mulches bound with chemical binders.

2. Temporary vegetative cover.

3. Spray-on adhesives on mineral soils when not used by traffic.

4. Tillage to roughen surface and bring clods to the surface.

5. Irrigation by water sprinkling.

6. Barriers using solid board fences, snow fences, burlap fences, crate walls, bales of straw, or similar materials.

C. Implement dust control methods immediately whenever dust can be observed blowing on the project site.

3.05 KEEPING STREETS CLEAN

A. Keep streets clean of construction debris and mud carried by construction vehicles and equipment. If necessary to keep the streets clean, install stabilized construction exits at construction, staging, storage, and disposal areas. A vehicle/equipment wash area (stabilized with coarse aggregate) may be installed adjacent to the stabilized construction exit, as needed. Release wash water into a drainage swale or inlet protected by erosion and sediment control measures. Construction exit and wash areas are specified in Section 01575 - Stabilized Construction Exit.

B. In lieu of or in addition to stabilized construction exits, shovel or sweep the pavement to the extent necessary to keep the street clean. Waterhosing or sweeping of debris and mud off of the street into adjacent areas is not allowed.

3.06 EQUIPMENT MAINTENANCE AND REPAIR

A. Confine maintenance and repair of construction machinery and equipment to areas specifically designated for that purpose. Locate such areas so that oils, gasoline, grease, solvents, and other potential pollutants cannot be washed directly into receiving streams or storm water conveyance systems. Provide these areas with adequate waste disposal receptacles for liquid as well as solid waste. Clean and inspect maintenance areas daily.

B. On a construction site where designated equipment maintenance areas are not feasible, take precautions during each individual repair or maintenance operation to prevent potential pollutants from washing into streams or conveyance systems. Provide temporary waste disposal receptacles.

3.07 WASTE COLLECTION AND DISPOSAL

A. Contractor shall formulate and implement a plan for the collection and disposal of waste materials on the construction site. In plan, designate locations for trash and waste receptacles and establish a collection schedule. Methods for ultimate disposal of waste shall be specified and carried out in accordance with applicable local, state, and federal health and safety regulations. Make special provisions for the collection and disposal of liquid wastes and toxic or hazardous materials.

B. Keep receptacles and waste collection areas neat and orderly to the extent possible. Waste shall not be allowed to overflow its container or accumulate from day-to-day. Locate trash collection points where they will least likely be affected by concentrated storm water runoff.

3.08 WASHING AREAS

A. Vehicles such as concrete delivery trucks or dump trucks and other construction equipment shall not be washed at locations where the runoff will flow directly into a watercourse or storm water conveyance system. Designate special areas for washing vehicles. Locate these areas where the wash water will spread out and evaporate or infiltrate directly into the ground, or where the runoff can be collected in a temporary holding or seepage basin. Beneath wash areas construct a gravel or rock base to minimize mud production.

3.09 STORAGE OF CONSTRUCTION MATERIALS AND CHEMICALS

A. Isolate sites where chemicals, cements, solvents, paints, or other potential water pollutants are stored in areas where they will not cause runoff pollution.

B. Store toxic chemicals and materials, such as pesticides, paints, and acids in accordance with manufacturers' guidelines. Protect groundwater resources from leaching by placing a plastic mat, packed clay, tar paper, or other impervious materials on any areas where toxic liquids are to be opened and stored.

3.10 DEMOLITION AREAS

A. Demolition activities which create large amounts of dust with significant concentrations of heavy metals or other toxic pollutants shall use dust control techniques to limit transport of airborne pollutants. However, water or slurry used to control dust contaminated with heavy metals or toxic pollutants shall be retained on the site and shall not be allowed to run directly into watercourses or storm water conveyance systems. Methods of ultimate disposal of these materials shall be carried out in accordance with applicable local, state, and federal health and safety regulations.

3.11 SANITARY FACILITIES

A. Provide and maintain sanitary facilities for persons on the job site; comply with the regulations of State and local departments of health.

B. Enforce the use of sanitary facilities by construction personnel at the job site. Such facilities shall be enclosed. Pit-type toilets will not be permitted. No discharge will be allowed form these facilities. Collect and store sewage and waste so as not to cause a nuisance or health problem; have sewer and waste hauled off-site and properly disposed in accordance with City regulations.

C. Located toilets near the Work site and secluded from view insofar as possible. Keep toilets clean and supplied throughout the course of the Work.

3.12 PESTICIDES

A. Use and store pesticides during construction in accordance with manufacturers' guidelines and with local, state, and federal regulations. Avoid overuse of pesticides which could produce contaminated runoff. Take great care to prevent accidental spillage. Never wash pesticide containers in or near flowing streams or storm water conveyance systems.

END OF SECTION

Section 01573

FILTER FABRIC FENCE

PART 1 G E N E R A L

1.01 SECTION INCLUDES

A. Installation of erosion and sediment control filter fabric fences used during construction and until final development of the site. The purpose of filter fabric fences is to contain pollutants from overland flow. Filter fabric fences are not for use in channelized flow areas.

1.02 UNIT PRICES

A. No separate payment will be made for Filter Fabric Fence under this section. Include payment in unit price for related sections.

1.03 SUBMITTALS

A. Manufacturer's catalog sheets and other product data on geotextile fabric.

1.04 REFERENCES

A. ASTM D3786 - Standard Test Method for Hydraulic Bursting Strength for Knitted Goods and Nonwoven Fabrics

B. ASTM D4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles

PART 2 P R O D U C T S

2.01 FILTER FABRIC

A. Provide woven or nonwoven geotextile filter fabric made of either polypropylene, polyethylene, ethylene, or polyamide material.

B. Geotextile fabric shall have a grab strength of 100 psi in any principal direction (ASTM D-4632), Mullen burst strength exceeding 200 psi (ASTM D-3786), and the equivalent opening size between 50 and 140.

C. Filter fabric material shall contain ultraviolet inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 degrees F to 120 degrees F.

D. Representative Manufacturers: Mirafi, Inc., or equal.

PART 3 E X E C U T I O N

3.01 PREPARATION AND INSTALLATION

A. Provide erosion and sediment control systems at the locations shown on the SWPPP. Such systems shall be of the type indicated and shall be constructed in accordance with the requirements shown on the Drawings and specified in this Section.

B. No clearing and grubbing or rough cutting shall be permitted until erosion and sediment control systems are in place, other than site work specifically directed by the Resident Project Representative to allow soil testing and surveying.

C. Maintain existing erosion and sediment control systems located within the project site until acceptance of the project or until directed by the Resident Project Representative to remove and discard the existing system.

D. Regularly inspect and repair or replace damaged components of filter fabric fences as specified in this Section. Unless otherwise directed, maintain the erosion and sediment control systems until the project area stabilization is accepted by the City. Remove erosion and sediment control systems promptly when directed by the Resident Project Representative. Discard removed materials off site.

E. Remove sediment deposits and dispose of them at the designated spoil site for the project. If a project spoil site is not designated on the Drawings, dispose of sediment off site at a location not in or adjacent to a stream or floodplain. Off-site disposal is the responsibility of the Contractor. Sediment to be placed at the project site should be spread evenly throughout the site, compacted and stabilized. Sediment shall not be allowed to flush into a stream or drainage way. If sediment has been contaminated, it shall be disposed of in accordance with existing federal, state, and local rules and regulations.

F. Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Damage caused by construction traffic to erosion and sediment control systems shall be repaired immediately.

G. Conduct all construction operations under this Contract in conformance with the erosion control practices described in Section 01572- Source Controls for Erosion and Sedimentation.

3.02 CONSTRUCTION METHODS

A. Provide filter fabric fence systems in accordance with the Drawing detail for Filter Fabric Fences. Filter fabric fences shall be installed in such a manner that surface runoff will percolate through the system in sheet flow fashion and allow sediment to be retained and accumulated.

B. Attach the filter fabric to steel posts spaced 6 to 8 feet and embedded a minimum of 18 inches. Steel posts shall have a minimum length of 4 feet. If filter fabric is factory preassembled with support netting, then maximum spacing allowable is 8 feet. Install stakes at a slight angle toward the source of anticipated runoff.

C. Trench in the toe of the filter fabric fence with a spade or mechanical trencher so that the downward face of the trench is flat and perpendicular to the direction of flow. The v-trench configuration as shown on the Drawings may also be used. Lay filter fabric along the edges of the trench. Backfill and compact trench.

D. Filter fabric fence shall have a minimum height of 18 inches and a maximum height of 36 inches above natural ground.

E. Provide the filter fabric in continuous rolls and cut to the length of the fence to minimize the use of joints. When joints are necessary, splice the fabric together only at a support post with a minimum 6-inch overlap and seal securely.

F. Inspect sediment filter barrier systems after each rainfall, daily during periods of prolonged rainfall, and at a minimum once each week. Repair or replace damaged sections immediately. Remove sediment deposits when silt reaches a depth one-third the height of the fence or 6 inches, whichever is less.

END OF SECTION

Section 01575

STABILIZED CONSTRUCTION EXIT

PART 1 G E N E R A L

1.01 SECTION INCLUDES

A. Installation of erosion and sediment control for stabilized construction exits used during construction and until final development of the site.

1.02 SUBMITTALS

A. Manufacturer's catalog sheets and other product data on geotextile fabric.

B. Sieve analysis of aggregates conforming to requirements of this Specification.

1.03 UNIT PRICES

A. No separate payment will be made for work performed under this Section. Include cost of work performed under this Section in pay items for which this work is a component.

1.04 REFERENCES

A. ASTM D 4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.

PART 2 P R O D U C T S

2.01 GEOTEXTILE FABRIC

A. Provide woven or nonwoven geotextile fabric made of either polypropylene, polyethylene, ethylene, or polyamide material.

B. Geotextile fabric shall have a minimum grab strength of 270 psi in any principal direction (ASTM D-4632), and the equivalent opening size between 50 and 140.

C. Both the geotextile and threads shall be resistant to chemical attack, mildew, and rot and shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable life at a temperature range of 0°F to 120°F.

D. Representative Manufacturers: Mirafi, Inc., or equal.

2.02 COARSE AGGREGATES

A. Coarse aggregate shall consist of crushed stone, gravel, crushed blast furnace slag, or a combination of these materials. Aggregate shall be composed of clean, hard, durable materials free from adherent coatings, salt, alkali, dirt, clay, loam, shale, soft or flaky materials, or organic and injurious matter.

B. Coarse aggregates shall conform to the following gradation requirements.

Sieve Size (Square Mesh)	Percent Retained (By Weight)
2-1/2"	0
2"	0 - 20
1-1/2"	15 - 50

3/4"	60 - 80
No. 4	95 - 100

PART 3 EXECUTION

3.01 PREPARATION AND INSTALLATION

A. If necessary to keep the street clean of mud carried by construction vehicles and equipment, Contractor shall provide stabilized construction roads and exits at the construction, staging, parking, storage, and disposal areas. Such erosion and sediment controls shall be constructed in accordance with the details shown on the Drawings and specified in this Section.

B. No clearing and grubbing or rough cutting shall be permitted until erosion and sediment control systems are in place, other than as specifically directed by the Resident Project Representative to allow soil testing and surveying.

C. Maintain existing erosion and sediment control systems located within the project site until acceptance of the project or until directed by the Resident Project Representative to remove and discard the existing system.

D. Regularly inspect and repair or replace components of stabilized construction exits. Unless otherwise directed, maintain the stabilized construction roads and exits until the project is accepted by the City. Remove stabilized construction roads and exits promptly when directed by the Resident Project Representative. Discard removed materials off site.

E. Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Damage caused by construction traffic to erosion and sediment control systems shall be repaired immediately.

F. Conduct all construction operation under this Contract in conformance with the erosion control practices described in the Specification 01572 - Source Controls for Erosion and Sedimentation.

3.02 CONSTRUCTION METHODS

A. Provide stabilized construction exits, and truck washing areas when approved by Resident Project Representative, of the sizes and locations where shown on SWPPP or as specified in this Section.

B. Vehicles leaving construction areas shall have their tires cleaned to remove sediment prior to entrance onto public right-of-way. When washing is needed to remove sediment, Contractor shall construct a truck washing area. Truck washing shall be done on stabilized areas which drain into a drainage system protected by erosion and sediment control measures.

C. Details for stabilized construction exit shall be shown on the SWPPP. Construction of all other stabilized areas shall be to the same requirements. Roadway width shall be at least 14 feet for one-way traffic and 20 feet for two-way traffic and shall be sufficient for all ingress and egress. Furnish and place geotextile fabric as a permeable separator to prevent mixing of coarse aggregate with underlaying soil. Exposure of geotextile fabric to the elements between laydown and cover shall be a maximum of 14 days to minimize damage potential.

D. Roads and parking areas shall be graded to provide sufficient drainage away from stabilized areas. Use sandbags, gravel, boards, or similar methods to prevent sediment from entering public right-of-way, receiving stream or storm water conveyance system.

E. The stabilized areas shall be inspected and maintained daily. Provide periodic top dressing with additional coarse aggregates to maintain the required depth. Repair and clean out damaged control

measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public right-of-way shall be removed immediately.

F. The length of the stabilized area shall be as shown on the SWPPP, but not less than 50 feet. The thickness shall not be less than 8 inches. The width shall not be less than the full width of all points of ingress or egress.

G. Stabilization for other areas shall have the same coarse aggregate, thickness, and width requirements as the stabilized construction exit, except where shown otherwise on the SWPPP.

H. Stabilized area may be widened or lengthened to accommodate truck washing area when authorized by Resident Project Representative.

I. Alternative methods of construction may be utilized when shown on SWPPP, or when approved by the Resident Project Representative. These methods include the following:

1. Cement-Stabilized Soil - Compacted cement-stabilized soil or other fill material in an application thickness of at least 8 inches.

2. Wood Mats/Mud Mats - Oak or other hardwood timbers placed edge-to-edge and across support wooden beams which are placed on top of existing soil in an application thickness of at least 6 inches.

3. Steel Mats - Perforated mats placed across perpendicular support members.

END OF SECTION

Section 01576

WASTE MATERIAL DISPOSAL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Disposal of waste material and salvageable material.

1.02 UNIT PRICES

A. No separate payment will be made for waste material disposal under this Section. Include payment in unit price for related sections.

1.03 SUBMITTALS

A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.

B. Obtain and submit disposal permits for proposed disposal sites if required by local ordinances.

C. Submit a copy of written permission from property owner, along with description of property, prior to disposal of excess material adjacent to the Project. Submit a written and signed release from property owner upon completion of disposal work.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 SALVAGEABLE MATERIAL

A. Excavated Material: When indicated on Drawings, load, haul, and deposit excavated material at a location or locations shown on Drawings outside the limits of Project.

B. Other Salvageable Materials: Conform to requirements of individual Specification Sections.

3.02 EXCESS MATERIAL

A. Vegetation, rubble, broken concrete, debris, asphaltic concrete pavement, excess soil, and other materials not designated for salvage, shall become the property of Contractor and shall be removed from the job site and legally disposed of.

B. Excess soil may be deposited on private property adjacent to the Project when written permission is obtained from property owner. See Paragraph 1.03 C above.

C. Waste materials shall be removed from the site on a daily basis, such that the site is maintained in a neat and orderly condition.

D. All sanitary sewer wastes must be properly pumped into the sanitary sewer collection system. Cleaning of the lift station residue, sand blasting and prior to resurfacing material must be hauled to a City and State approved agency for disposal.

END OF SECTION

SECTION 01578

CONTROL OF GROUND AND SURFACE WATER

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Dewatering, depressurizing, draining, and maintaining trenches, shaft excavations, structural excavations and foundation beds in stable condition, and controlling ground water conditions for tunnel excavations.

B. Protecting work against surface runoff and rising floodwaters.

C. Trapping suspended sediment in the discharge form the surface and ground water control systems.

1.02 MEASUREMENT AND PAYMET

A. Unit Prices

1. Measurement for control of ground water, if included in Bid Form, will be on either a lump sum basis or a linear foot basis for continuous installations of wellpoints, eductor wells, or deep wells.

2. If not included in Bid Form, include the cost to control ground water in unit price for work requiring such controls.

3. No separate payment will be made for control of surface water. Include cost to control surface water in unit price for work requiring controls.

4. Follow Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum) Contract. If the Contract is a Stipulated Price Contract, include payment for work under this section in the total Stipulated Price.

1.03 REFERENCES

A. ASTM D 698 - Standard Test Methods for Laboratory Compaction of Soils Using Standard Effort (12,400 ft-lbf/ft3 (600kN-m/m3)

B. Federal Regulations, 29 CFR Part 1926, Standards-Excavation, Occupational Safety and Health Administration (OSHA)

1.04 DEFINITIONS

A. Ground water control system: system used to dewater and depressurize water-bearing soil layers.

1. Dewatering: lowering the water table and intercepting seepage that would otherwise emerge from slopes or bottoms of excavations, or into tunnels and shafts; and disposing of removed water. Intent of dewatering is to increase stability of tunnel excavations and excavated slopes, prevent dislocation of material from slopes or bottoms of excavations, reduce lateral loads on sheeting and bracing, improve excavating and hauling characteristics of excavated material, prevent failure or heaving of bottom of excavations, and to provide suitable conditions for placement of backfill materials and construction of

structures and other installations.

2. Depressurization: includes reduction in piezometric pressure within strata not controlled by dewatering alone, necessary to prevent failure or heaving of excavation bottom or instability of tunnel excavations.

B. Excavation drainage: includes keeping excavations free of surface and seepage water.

C. Surface drainage: includes use of temporary drainage ditches and dikes and installation of temporary culverts and sump pumps with discharge lines necessary to protect Work from any source of surface water.

D. Monitoring facilities for ground water control system: includes piezometers, monitoring wells and flow meters for observing and recording flow rates.

1.05 PERFORMANCE REQUIREMENTS

A. Conduct subsurface investigations to identify groundwater conditions and to provide parameters for design, installation, and operation of groundwater control systems. Submit proposed method and spacing of readings for review prior to obtaining water level readings.

B. Design ground water control system, compatible with requirements of Federal Regulations 29 CFR Part 1926 and Section 02260 - Trench Safety Systems, to produce following results:

1. Effectively reduce hydrostatic pressure affecting:

a. Excavations

b. Tunnel excavation, face stability or seepage into tunnels

2. Develop substantially dry and stable subgrade for subsequent construction operations.

3. Preclude damage to adjacent properties, buildings, structures, utilities, installed facilities and other work.

4. Prevent loss of fines, seepage, boils, quick condition, or softening of foundation strata.

5. Maintain stability of sides and bottom of excavations.

C. Provide ground water control systems that include single-stage or multiple stage well point systems, eductor and ejector-type systems, deep wells, or combinations of these equipment types.

D. Provide drainage of seepage water and surface water, as well as water from other sources entering excavation. Excavation drainage may include placement of drainage materials, gravel filter fabric, together with sump pumping.

E. Provide ditches, berms, pumps and other methods necessary to divert and drain surface water from excavation and other work areas.

F. Locate ground water control and drainage systems so as not to interfere with utilities, construction operations, adjacent properties, or adjacent water wells.

G. Assume sole responsibility for ground water control systems and for any loss or damage

resulting from partial or complete failure of protective measures and settlement or resultant damage caused by ground water control operations. Modify ground water control systems or operations if they cause or threaten to cause damage to new construction, existing site improvements, adjacent property, adjacent water wells, or potentially contaminated areas. Repair damage caused by ground water control systems or resulting from failure of system to protect property as required.

H. Install an adequate number of piezometers installed at proper locations and depths, necessary to provide meaningful observations of conditions affecting excavation, adjacent structures and water wells.

I. Install environmental monitoring wells at proper locations and depths necessary to provide adequate observations of hydrostatic conditions and possible contaminant transport from contamination sources into work area or ground water control system.

1.06 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittals Procedures.

B. Submit Ground Water and Surface Water Control Plan for review by Engineer prior to start of excavation work. Include the following:

1. Results of subsurface investigations and description of extent and characteristics of water bearing layers subject to ground water control.

2. Names of equipment Suppliers and installation Subcontractors.

3. Description of proposed ground water control systems indicating arrangement, location, depth and capacities of system components, installation details and criteria and operation and maintenance procedures.

4. Description of proposed monitoring facilities indicating depths and locations of piezometers and monitoring wells, monitoring installation details and criteria, type of equipment and instrumentation with pertinent data and characteristics.

5. Description of proposed filters including types, sizes, capacities and manufacturer's application recommendations.

6. Design calculations demonstrating adequacy of proposed systems for intended applications. Define potential area of influence of ground water control operation near contaminated areas.

7. Operating requirements, including piezometric control elevations for dewatering and depressurization.

8. Excavation drainage methods including typical drainage layers, sump pump application and other means

9. Surface water control and drainage installations

10. Proposed methods and locations for disposing of removed water

C. Submit following records upon completion of initial installation:

1. Installation and development reports for well points, eductors, and deep wells.

2. Installation reports and baseline readings for piezometers and monitoring wells.

3. Baseline analytical test data of water from monitoring wells.

4. Initial flow rates

D. Submit the following records weekly during control of ground and surface water operations:

1. Records of flow rates and piezometric elevations obtained during monitoring of dewatering and depressurization. Refer to Paragraph.

2. Maintenance records for ground water control installations, piezometers and monitoring wells

1.07 ENVIRONMENTAL REQUIREMENTS

A. Comply with requirements of agencies having jurisdiction.

B. Comply with Texas Commission on Environmental Quality regulations and Texas Water Well Drillers Association for development, drilling, and abandonment of wells used in dewatering system.

C. Obtain necessary permits from agencies with jurisdiction over use of groundwater and matters affecting well installation, water discharge, and use of existing storm drains and natural water sources. Since review and permitting process may be lengthy, take early action to obtain required approvals.

D. Monitor ground water discharge for contamination while performing pumping in vicinity of potentially contaminated sites.

PART 2 P R O D U C T S

2.01 EQUIPMENT AND MATERIALS

A. Select equipment and materials necessary to achieve desired results for dewatering. Selected equipment and materials are subject to review by Engineer through submittals required in Paragraph 1.06, Submittals.

B. Use experienced contractors, regularly engaged in ground water control system design, installation, and operation, to furnish and install and operate eductors, well points, or deep wells, when needed.

C. Maintain equipment in good repair and operating condition.

D. Keep sufficient standby equipment and materials available to ensure continuous operation, where required.

E. Portable Sediment Tank System: Standard 55-gallon steel or plastic drums, free of hazardous material contamination.

1. Shop or field fabricate tanks in series with main inlet pipe, inter-tank pipes and discharge pipes, using quantities sufficient to collect sediments from discharge water.

PART 3 E X E C U T I O N

3.01 GROUND WATER CONTROL

A. Perform necessary subsurface investigation to identify water bearing layers, piezometric pressures and soil parameters for design and installation of ground water control

systems. Perform pump tests, if necessary to determine draw down characteristics. Present results in the Ground Water and Surface Water Control Plan.

B. Provide labor, material, equipment, techniques and methods to lower, control and handle ground water in manner compatible with construction methods and site conditions. Monitor effectiveness of installed system and its effect on adjacent property.

C. Install, operate, and maintain ground water control systems in accordance with the Ground Water and Surface Water Control Plan. Notify Engineer in writing of changes made to accommodate field conditions and changes to Work. Provide revised drawings and calculations with notification.

D. Provide continuous system operation, including nights, weekends, and holidays. Arrange appropriate backup if electrical power is primary energy source for dewatering system.

E. Monitor operations to verify systems lower ground water piezometric levels at rate required to maintain dry excavation resulting in stable subgrade for subsequent construction operations.

F. Depressurize zones where hydrostatic pressures in confined water bearing layers exist below excavations to eliminate risk of uplift or other instability of excavation or installed works. Define allowable piezometric elevations in the Ground Water and Surface Water Control Plan.

G. Removal of ground water control installations.

1. Remove pumping system components and piping when ground water control is no longer required.

2. Remove piezometers, including piezometers installed during design phase investigations and left for Contractor's use, upon completion of testing, as required in accordance with Part 3 of applicable specification.

3. Remove monitoring wells when directed by Engineer.

4. Grout abandoned well and piezometer holes. Fill piping that is not removed with cement-bentonite grout or cement-sand grout.

H. During backfilling, maintain water level a minimum of 5 feet below prevailing level of backfill. Do not allow the water level to cause uplift pressures in excess of 80 percent of downward pressure produced by weight of structure or backfill in place. Do not allow water levels to rise into cement-stabilized sand until at least 48 hour after placement.

I. Provide uniform pipe diameter for each pipe drain run constructed for dewatering. Remove pipe drains when no longer required. If pipe removal is impractical, grout connections at 50-foot intervals and fill pipe with cement bentonite grout or cement-sand grout after removal from service.

J. The extent of ground water control for structures with permanent perforated underground drainage systems may be reduced, for units designed to withstand hydrostatic uplift pressure. Provide a means to drain affected portions of underground systems, including standby equipment. Maintain drainage systems during construction operations.

K. Remove systems upon completion of construction or when dewatering and control of surface or ground water is no longer required.

L. Compact backfill to not less than 95 percent of maximum dry density in accordance with ASTM D 698.

M. Foundation Slab: Maintain saturation line at least 3 feet below lowest elevations where concrete is to be placed. Drain foundations in areas where concrete is to be placed before placing reinforcing steel. Keep free from water for 3 days after concrete is placed.

3.02 REQUIREMENTS FOR EDUCTOR, WELL POINTS, OR DEEP WELLS

A. For aboveground piping in ground water control system, include a 12-inch minimum length of clear, transparent piping between each eductor well or well point and discharge header to allow visual monitoring of discharge from each installation.

B. Install sufficient piezometers or monitoring wells to show that trench or shaft excavations in water bearing materials are pre-drained prior to excavation. Provide separate piezometers for monitoring of dewatering and for monitoring of depressurization. Install piezometers and monitoring wells for tunneling as appropriate for selected method of work.

C. Install piezometers or monitoring wells at least one week in advance of the start of associated excavation.

D. Dewatering may be omitted for portions of under drains or other excavations, where auger borings and piezometers or monitoring wells show that soil is pre-drained by existing systems and that ground water control plan criteria are satisfied.

E. Replace installations that produce noticeable amounts of sediments after development.

F. Provide additional ground water control installations, or change method of control if, ground water control plan does not provide satisfactory results based on performance criteria defined by plan and by specifications. Submit revised plan according to Paragraph 1.06B.

3.03 SEDIMENT TRAPS

A. Install sediment tank as shown on approved plan.

B. Inspect daily and clean out tank when one-third of sediment tank is filled with sediment.

3.04 SEDIMENT SUMP PIT

A. Install sediment sump pits as shown on approved plan.

B. Construct standpipe by perforating 12 inch to 24-inch diameter corrugated metal or PVC pipe.

C. Extend standpipe 12 inches to 18 inches above lip of pit.

D. Convey discharge of water pumped from standpipe to sediment trapping device.

E. Fill sites of sump pits, compact to density of surrounding soil and stabilize surface when construction is complete.

3.05 EXCAVATION DRAINAGE

A. Use excavation drainage methods if well-drained conditions can be achieved. Excavation drainage may consist of layers of gravel and filter fabric, and sump pumping, in combination with sufficient ground water control wells to maintain stable excavation and backfill conditions.

3.06 MAINTENANCE AND OBSERVATION

A. Conduct daily maintenance and observation of piezometers or monitoring wells while ground water control installations or excavation drainage is operating at the site, or water is seeping into tunnels, and maintain systems in good operating condition.

B. Replace damaged and destroyed piezometers or monitoring wells with new piezometers or wells as necessary to meet observation schedules.

C. Cut off piezometers or monitoring wells in excavation areas where piping is exposed, only as necessary to perform observation as excavation proceeds. Continue to maintain and make specified observations.

D. Remove and grout piezometers inside or outside of excavation area when ground water control operations are complete. Remove and grout monitoring wells when directed by Engineer.

3.07 MONITORING AND RECORDING

A. Monitor and record average flow rate of operation for each deep well, or for each wellpoint or eductor header used in dewatering system. Also, monitor and record water level and ground water recovery. Record observations daily until steady conditions are achieved and twice weekly thereafter.

B. Observe and record elevation of water level daily as long as ground water control system is in operation, and weekly thereafter until Work is completed or piezometers or wells are removed, except when Engineer determines more frequent monitoring and recording are required. Comply with Engineer's direction for increased monitoring and recording and take measures necessary to ensure effective dewatering for intended purpose.

3.08 SURFACE WATER CONTROL

A. Intercept surface water and divert it away from excavations through use of dikes, ditches, curb walls, pipes, sumps or other approved means. Requirement includes temporary works required to protect adjoining properties from surface drainage caused by construction operations.

B. Divert surface water and seepage water into sumps and pump it into drainage channels or storm drains, when approved by agencies having jurisdiction. Provide settling basins when required by agencies.

END OF SECTION – 01578

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Maintain at the site for the Owner one record copy of:
   1. Drawings
   2. Specifications
   3. Addenda
   4. Change Orders and other Modifications to the Contract
   5. Engineer Field Orders or written instructions
   6. Approved Shop Drawings, Product Data and Samples
   7. Approved Operation and Maintenance Data
   8. Field Test records
   9. Receipts for delivery of items to Owner

B. Delegate the responsibility for maintenance of record documents to one person on the Contractor's staff as approved in advance by the Engineer.

C. Thoroughly coordinate all changes within the record documents, making adequate and proper entries on each page of the specifications and each sheet of drawings and other documents where such entry is required to properly show the change. Accuracy of records shall be such that future search for items shown in the contract documents may reasonably rely on information obtained from the approved record documents.

D. Make all entries within 24 hours after receipt of information. One (1) set is to be maintained at the Contractor's job trailer at all times. As-builts are to be updated as a condition of each pay application

1.02 RELATED REQUIREMENTS

A. Section 01300: Submittals

B. Section 01152: Applications for Payment

D. Section 01700: Contract Closeout

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

A. File documents and samples in accordance with specification format.

B. Maintain documents in a clean, dry legible condition and in good order. Do not use record documents for construction purposes.

C. Make documents and samples available at all times for inspection by Engineer and Owner.

1.04 RECORDING

A. Label each document "PROJECT RECORD" in neat large printed letters.

B. Record information concurrently with construction progress.
   1. Do not conceal any work until required information is recorded.

C. Drawings; Legible mark to record actual construction:
   1. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements..
   2. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
   3. Field changes of dimension and detail.
   4. Changes made by Field Order or by Change Order.
   5. Details not on original contract drawings.
   6. For gravity sewer lines: Elevation and alignment of line, location of cleanouts, distance between cleanouts, and location of each service line referenced by distance from main trunk line and distance from sewer centerline to end of service line.

D. Use all means necessary to maintain the job set of record documents completely protected from deterioration and from loss and damage until completion of the Work and transfer of the recorded data to the final record documents. In the event of loss of recorded data, use all means necessary to secure the data to the Engineer's approval; such means shall include, if necessary in the opinion of the Engineer, removal and replacement of concealing materials and, in such case, all replacements shall be to the standards originally specified in the contract documents.

E. Specifications and Addenda; Legibly mark each Section to record:
   1. Manufacturer, trade name, catalog number, and Supplier of each Product and item of equipment actually installed.

G. Clearly describe all change orders by note and by graphic line, as required. Date all entries. Call attention to the entry by highlighting around the area or areas affected. In the event of overlapping changes, different colors may be used for each of the changes.

1.05 SUBMITTAL

A. At Contract close-out, deliver Record Documents to Engineer for the Owner.

B. Accompany submittal with transmittal letter in duplicate, containing:
   1. Date
   2. Project title and number
   3. Contractor's name and address
   4. Title and number of each Record Document
   5. Signature of Contractor or his authorized representative.

1.06 PAYMENT

A. Project record documents are incidental to Work for which no separate payment will be made.

B. No payment will be made to the Contractor for any portion of the work for which the project record documents including recording are not complete.

END OF SECTION - 01720

Division 2
Site Work

Section 02221

REMOVING EXISTING PAVEMENTS AND STRUCTURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Removing concrete pavement, asphaltic concrete pavement, and base courses.

B. Removing concrete curbs, concrete curbs and gutters, sidewalks and driveways.

C. Removing pipe culverts and storm sewers.

D. Removing existing inlets and manholes.

E. Removing miscellaneous structures of concrete or masonry.

F. Removing irrigation concrete pipe, stand pipes, valves and related irrigation structures.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No Separate payment will be made for work performed under this Section. Include cost of work performed under this Section in pay items for which this work is a component.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REGULATORY REQUIREMENTS

A. Conform to Section 01576 – Waste Material Disposal, applicable codes, and local laws for disposal of debris.

B. Coordinate clearing work with utility companies.

1.04 SUBMITTALS

A. Conform to the requirements of Section 01330 – Submittal Procedures.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 PREPARATION

A. Obtain advance approval from Engineer for dimensions and limits of removal work.

B. Locate and identify buried utilities. Identification shall be by flagging and offset staking.

3.02 PROTECTION

A. Protect the following from damage or displacement:

1. Adjacent public and private property.

2. Trees, plants, and other landscape features designated to remain.

3. Utilities designated to remain.

4. Benchmarks, monuments, and existing structures designated to remain.

3.03 REMOVALS

A. Remove pavement and structures by methods that will not damage underground utilities. Do not use a drop hammer near existing underground utilities.

B. Minimize amount of earth loaded during removal operations.

C. Where existing pavement is to remain, make straight saw cuts in existing pavement to provide clean breaks prior to removal. Do not break concrete pavement or base with drop hammer unless concrete or base has been saw cut to a minimum depth of 2-inches.

D. Where street and driveway saw cut locations coincide or fall within 3-feet of existing construction or expansion joints, break out to existing joints.

E. Remove sidewalks and curbs to nearest existing dummy, expansion, or construction joint.

F. Where existing end of pipe culvert or end of sewer is to remain, install and 8-in-thick masonry plug in pipe end prior to backfill.

G. Remove all irrigation structure that are to be abandoned as per the construction plans, all underground pipes and appurtenances shall be removed and the disturbed soils shall be replaced and compact to a minimum of 85% density to the elevation equal to the surrounding natural ground.

3.04 BACKFILL

A. Backfill of removal areas shall be in accordance with requirements of Section 02316 – Excavation and Backfill of Structures.

3.05 DISPOSAL

A. Disposal shall in accordance with requirements of Section 01576 – Waste Material Disposal.

B. Remove debris, rubbish, and extracted plant material from the site in accordance with requirements of Section 01576 - Waste Material Disposal.

END OF SECTION

Section 02233

CLEARING AND GRUBBING

PART 1 G E N E R A L

1.01 SECTION INCLUDES

A. Removing surface debris and rubbish.

B. Clearing site of plant life and grass.

C. Removing trees and shrubs.

D. Removing root system of trees and shrubs.

1.02 MEASUREMENT AND PAYMENT – NOT USED

1.03 REGULATORY REQUIREMENTS – Not Used

1.04 SUBMITTALS – NOT USED

PART 2 P R O D U C T S - NOT USED

PART 3 E X E C U T I O N

3.01 PREPARATION

A. Verify that existing plant life and features designated to remain are identified and tagged. Submit preconstruction photographs.

3.02 PROTECTION

A. Protect the following from damage or displacement:

1. Living trees located 3 feet or more outside of the intersection of side slopes and original ground line.

2. Plants other than trees and landscape features designated to remain.

3. Utilities designated to remain.

4. Bench marks, monuments, and existing structures designated to remain.

3.03 CLEARING

A. Remove stumps, main root ball, and root system to:

1. A depth of 24 inches below the finished subgrade elevation in the area bounded by lines two feet behind back of curbs.

2. A depth of 24 inches below the finished surface of the required cross section for other areas.

B. Clear undergrowth and deadwood without disturbing subsoil.

C. Remove vegetation from top soil scheduled for reuse.

3.04 REMOVAL

A. Remove debris, rubbish, and extracted plant material life from the site.

END OF SECTION

Section 02315

ROADWAY EXCAVATION
AND
ROADSIDE DITCHES, DRAINAGE DITCHES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Excavation and compaction of materials for roadways.

B. Excavation and compaction of materials for roadside ditches.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. Payment for roadway excavation is on a cubic yard basis.

2. No payment will be made for material excavated more than 2 feet outside of vertical planes behind back of curbs, for portion within limits of trench for utilities 24-inch and greater constructed by open-cut methods, or as indicated otherwise on the Drawings.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

A. ASTM D 698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12.44 ft-lbf/ft^3).

B. ASTM D 2216 – Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.

C. ASTM D 2922 – Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

D. ASTM D 3017 – Standard Test Method for Water content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

E. ASTM D 4318 – Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

PART 2 PRODUCTS

A. MATERIALS

B. Provide topsoil conforming to the Geotechnical recommendation.

C. Provide backfill which is excavated material, graded free of roots, lumps greater than 6 inches, rocks larger than 3 inches, organic material, and debris.

D. Provide structural backfill which is select material meeting the following requirements:

1. Plasticity index: not less than 12 nor more than 20.

2. Maximum liquid limit: 45.

PART 3 EXECUTION

3.01 PREPARATION

A. Identify required lines, levels, and datum.

B. Identify and flag surface and aerial utilities.

C. Notify utility companies to remove or relocate utilities.

D. Identify, stake, and flag known utility locations below grade. Make temporary or permanent relocation of underground pipes, ducts, or utilities where indicated on Drawings.

E. Upon discovery of unknown or badly deteriorated utilities, or concealed conditions, discontinue work. Notify Project Manager and obtain instructions before proceeding in such areas.

F. Obtain approval of top soil quality before excavating and stockpiling.

3.02 PROTECTION

A. Protect the following from damage or displacement:

1. Trees, shrubs, lawns, existing structures, and other features outside of grading limits.

2. Utilities either above or below grade, which are to remain.

3.03 TOPSOIL REMOVAL

A. Strip off topsoil from the area to be excavated to a minimum depth of 6 inches, unless indicated otherwise on the Drawings.

B. Stockpile topsoil in a designated location for reuse. Stockpile topsoil to depth not exceeding 8 feet. Cover to protect from erosion.

3.04 SOIL EXCAVATION

A. Excavate to lines and grades shown on Drawings.

B. Remove unsuitable material not meeting specifications. Backfill with embankment materials and compact to requirements of Section 02330 - Embankment.

C. Record location and plug and fill inactive water and oil wells. Conform to Texas Department of Health, Texas Natural Resource Conservation Commission, and Texas Railroad Commission requirements. Notify Project Manager prior to plugging wells.

D. At intersections, grade back at minimum slope of one inch per foot. Produce a smooth riding junction with intersecting street. Maintain proper drainage.

E. If an area is inadvertently over excavated, fill the area in accordance with requirements of Section 02330 - Embankment at no additional cost to the Owner.

F. Remove material not qualified for use and excess soil not being reused from the site in accordance with requirements of Section 01576 - Waste Material Disposal.

3.05 COMPACTION

A. Maintain optimum moisture content of subgrade to attain required density.

B. Compact to following minimum densities at a moisture content of optimum to 3 percent above optimum as determined by ASTM D 698, unless otherwise indicated on the Drawings:

1. Areas under future paving and shoulders: Minimum density of 95 percent of maximum dry density.

2. Other areas: Minimum density of 90 percent of maximum dry density.

3.06 TOLERANCES

A. Top of Compacted Surface: Plus or minus 1/2 inch in cross section, or in 16 foot length.

3.07 FIELD QUALITY CONTROL

A. Testing will be performed under provisions of Section 01454 - Testing Laboratory Services.

B. Test and analysis of soil materials will be performed in accordance with ASTM D 4318, ASTM D 2216, and ASTM D 698.

C. Compaction testing will be performed in accordance with ASTM D 698 or ASTM D 2922 and ASTM D 301.

D. A minimum of three tests will be taken for each 1000 linear feet per lane of roadway.

E. If tests indicate work does not meet specified compaction requirements, recondition, re-compact, and retest at no additional cost to the Owner.

3.08 PROTECTION

A. Prevent erosion at all times. Maintain ditches and cut temporary swales to allow natural drainage in order to avoid damage to roadway. Do not allow water to pond.

B. Distribute construction traffic evenly over compacted areas, where practical, to aid in obtaining uniform compaction. Protect exposed areas having high moisture content from wheel loads that cause rutting.

C. Maintain excavation and embankment areas until start of subsequent work. Repair and re-compact slides, washouts, settlements, or areas with loss of density.

END OF SECTION

SECTION 02316

EXCAVATION AND BACKFILL FOR STRUCTURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Excavation, backfilling, and compaction of backfill for structures.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No payment will be made for structural excavation and backfill under this Section. Include payment in unit price or lump sum for construction of structures.

2. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for work in this Section is included in total Stipulated Price.

1.03 DEFINITIONS

A. Unsuitable Material: Unsuitable soil materials are the following:

1. Materials that are classified as ML, CL-ML, MH, PT, OH, and OL according to ASTMD 2487.

2. Materials that cannot be compacted to required density due to gradation, plasticity, or moisture content.

3. Materials that contain large clods, aggregates, stones greater than 4 inches in any
dimension, debris, vegetation, waste or any other deleterious materials.

4. Materials that are contaminated with hydrocarbons or other chemical contaminants.

B. Suitable Material: Suitable soil materials are those meeting specification requirements.

C. Select Material: Material as defined in Section 02320 - Utility Backfill Materials.

D. Backfill: Select material meeting specified quality requirements, placed and compacted under controlled conditions around structures.

E. Foundation Backfill Materials: Natural soil or manufactured aggregate meeting Class I requirements and geotextile filter fabrics as required, to control drainage and material separation. Foundation backfill material is placed and compacted as backfill where needed to provide stable support for structure foundation base.

F. Foundation Base: For foundation base material, use gravel aggregate with filter fabric as required. Foundation base provides smooth, level working surface for construction of concrete foundation.

G. Foundation Subgrade: Foundation subgrade is surface of natural soil which has been excavated and prepared to support foundation base or foundation backfill, where needed.

H. Ground Water Control Systems: Installations external to excavation such as well points, eductors, or deep wells. Ground water control includes dewatering to lower ground water, intercepting seepage which would otherwise emerge from side or bottom of excavation, and depressurization to prevent failure or heaving of excavation bottom. Refer to Section 01578 - Control of Ground Water and Surface Water.

I. Surface Water Control: Diversion and drainage of surface water runoff and rain water away from excavation. Remove rain water and surface water which accidentally enters excavation as part of excavation drainage.

J. Excavation Drainage: Removal of surface and seepage water in excavation by sump pumping and using French drains surrounding foundation to intercept water.

K. Over-Excavation and Backfill: Excavation of subgrade soils with unsatisfactory bearing capacity or composed of otherwise unsuitable materials below foundation as shown on Drawings, and backfilled with foundation backfill material.

L. Shoring System: Structure that supports sides of an excavation to maintain stable soil conditions and prevent cave-ins.

1.04 REFERENCES

A. ASTM D 698 - Standard Test Methods for Laboratory Compaction of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600kN-m/m3)).

B. ASTM D 1556 - Standard Test Method for Density of Soil in Place by Sand-Cone Method.

C. ASTM D 2922 - Standard Test Methods for Density of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

D. ASTM D 3017 - Standard Test Method for Water Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depths).

E. ASTM D 4318 - Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

F. TxDOT Tex-101-E - Preparing Soil and Flexible Base Materials for Testing.

G. TxDOT Tex-110-E - Particle Size Analysis of Soils.

H. Federal Regulations, 29 CFR, Part 1926, Standards - Excavation, Occupational Safety and Health Administration (OSHA).

1.05 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittal Procedures.

B. Submit work plan for excavation and backfill for each structure with complete written description which identifies details of proposed method of construction and sequence of operations for construction relative to excavation and backfill activities. Use descriptions, with supporting illustrations, sufficiently detailed to demonstrate to Engineer that procedures meet requirements of Specifications and Drawings.

C. Submit excavation safety system plan.

1. Submit excavation safety system plan in accordance with applicable OSHA requirements for excavations.

2. Submit excavation safety system plan in accordance with requirements of Section 02260 - Trench Safety System, for excavations that fall under State and Federal trench safety laws.

D. Submit ground and surface water control plan in accordance with requirements in this Section and Section 01578 - Control of Ground Water and Surface Water.

E. Submit backfill material sources and product quality information in accordance with requirements of Section 02320 - Utility Backfill Materials.

F. Submit project record documents under provisions of Section 01785 - Project Record Documents. Record location of utilities, as installed, referenced to survey benchmarks. Include location of utilities encountered or rerouted. Give horizontal dimensions, elevations, inverts and gradients.

1.06 TESTS

A. Testing and analysis of backfill materials for soil classification and compaction during construction will be performed by an independent laboratory provided by Owner in accordance with requirements of Section 01454 - Testing Laboratory Services and as specified in this Section.

B. Perform embedment and backfill material source qualification testing in accordance with requirements of Section 02320- Utility Backfill Materials.

PART 2 P R O D U C T S

2.01 EQUIPMENT

A. Perform excavation with equipment suitable for achieving requirements of this Specification.

B. Use equipment which will produce degree of compaction specified. Compact backfill within 3 feet of walls with hand operated equipment. Do not use equipment weighing more than 10,000 pounds closer to walls than a horizontal distance equal to depth of fill at that time. Use hand operated power compaction equipment where use of heavier equipment is impractical or restricted due to weight limitations.

2.02 MATERIAL CLASSIFICATIONS

A. Use backfill materials conforming to classifications and product descriptions of Section 02320 - Utility Backfill Materials. Use classification or product description for backfill applications as shown on Drawings and as specified.

PART 3 E X E C U T I O N

3.01 PREPARATION

A. Conduct an inspection to determine condition of existing structures and other permanent installations.

B. Set up necessary street detours and barricades in preparation for excavation if construction will affect traffic. Conform to requirements of Section 01555 - Traffic Control and Regulation. Maintain barricades and warning devices at all times for streets and intersections where work is in progress, or where affected by Work, and is considered hazardous to traffic movements.

C. Perform work in accordance with OSHA standards. Employ an excavation safety system as specified in Section 02260 - Trench Safety Systems.

D. Remove existing pavements and structures, including sidewalks and driveways.

E. Install and operate necessary dewatering and surface water control measures in accordance with requirements of Section 01578 - Control of Ground Water and Surface Water.

3.02 PROTECTION

A. Protect trees, shrubs, lawns, existing structures, and other permanent objects outside of grading limits and within grading limits as designated on Drawings.

B. Protect and support above-grade and below-grade utilities which are to remain.

C. Restore damaged permanent facilities to pre-construction conditions unless replacement or abandonment of facilities is indicated on Drawings.

D. Prevent erosion of excavations and backfill. Do not allow water to pond in excavations.

E. Maintain excavation and backfill areas until start of subsequent work. Repair and re-compact slides, washouts, settlements, or areas with loss of density at no additional cost to the Owner.

3.03 EXCAVATION

A. Perform excavation work so that underground structure can be installed to depths and alignments shown on Drawings. Use caution during excavation work to avoid disturbing surrounding ground and existing facilities and improvements. Keep excavation to absolute minimum necessary. No additional payment will be made for excess excavation not authorized by Engineer.

B. Upon discovery of unknown utilities, badly deteriorated utilities not designated for removal, or concealed conditions, discontinue work at that location. Notify Engineer and obtain instructions before proceeding in such areas.

C. Immediately notify agency or company owning any line which is damaged, broken or disturbed. Obtain approval from Engineer and agency for any repairs or relocations, either temporary or permanent.

D. Avoid settlement of surrounding soil due to equipment operations, excavation procedures, vibration, dewatering, or other construction methods.

E. Provide surface drainage during construction to protect work and to avoid nuisance to adjoining property. Where required, provide proper dewatering and piezometric pressure control during construction.

F. Conduct hauling operations so that trucks and other vehicles do not create dirt nuisance in streets. Verify that truck beds are sufficiently tight and loaded in such a manner such that objectionable materials will not spill onto streets. Promptly clear away any dirt, mud, or other materials that spill onto streets or are deposited onto streets by vehicle tires.

G. Maintain permanent benchmarks, monumentation, and other reference points. Unless otherwise directed, replace those which are damaged or destroyed by Work.

H. Provide sheeting, shoring, and bracing where required to safely complete Work, to prevent excavation from extending beyond limits indicated on Drawings, and to protect Work and adjacent structures or improvements. Use sheeting, shoring, and bracing to protect workmen and public conforming to requirements of Section 02260 - Trench Safety Systems.

I. Prevent voids from forming outside of sheeting. Immediately fill voids with grout, cement stabilized sand, or other material approved by Engineer and compact to 95 percent standard density.

J. After completion of structure, remove sheeting, shoring, and bracing unless shown on Drawings to remain in place or directed by Engineer in writing that such temporary structures may remain. Remove sheeting, shoring and bracing in such a manner as to maintain safety during backfilling operations and to prevent damage to Work and adjacent structures or improvements.

K. Immediately fill and compact voids left or caused by removal of sheeting with cement stabilized sand or other material approved by Engineer and compact to 95 percent standard density.

3.04 HANDLING EXCAVATED MATERIALS

A. Classify excavated materials. Place material which is suitable for use as backfill in orderly piles at sufficient distance from excavation to prevent slides or cave-ins.

B. Provide additional backfill material, if adequate quantities of suitable material are not available from excavation and trenching operations at site.

3.05 DEWATERING

A. Provide ground water control per Section 01578 - Control of Ground Water and Surface Water.

B. Keep ground water surface elevation minimum of 2 feet below bottom of foundation base.

C. Maintain ground water control as directed by Section 01578 - Control of Ground Water and Surface Water and until structure is sufficiently complete to provide required weight to resist hydrostatic uplift with minimum safety factor of 1.2.

3.06 FOUNDATION EXCAVATION

A. Notify Engineer at least 48 hours prior to plan completion of foundation excavations. Do not place foundation base until excavation is accepted by Engineer.

B. Excavate to elevations shown on Drawings, as needed to provide space for foundation base, forming level undisturbed surface, free of mud or soft material. Remove pockets of soft or otherwise unstable soils and replace with foundation backfill material or material as directed by Engineer. Prior to placing material over it, re-compact subgrade where indicated on Drawings, scarifying as needed, to 95 percent of maximum Standard Dry Density according to ASTM D 698. If specified level of compaction cannot be achieved, moisture condition subgrade and re-compact until 95 percent is achieved, over-excavate to provide minimum layer of 24 inches of foundation backfill material, or other means acceptable to Engineer.

C. Fill unauthorized excessive excavation with foundation backfill material or other material as directed by Engineer.

D. Protect open excavations from rainfall, runoff, freezing groundwater, or excessive drying so as to maintain foundation subgrade in satisfactory, undisturbed condition. Keep excavations free of standing water and completely free of water during concrete placement.

E. Remove soils which become unsuitable due to inadequate dewatering or other causes, after initial excavation to required subgrade, and replace with foundation backfill material, as directed by Engineer, at no additional cost to Owner.

F. Place foundation base, or foundation backfill material where needed, over subgrade on same day that excavation is completed to final grade. Where base of excavations are left open for longer periods, protect them with seal slab or cement-stabilized sand.

G. Use filter fabric to separate gravel aggregate, and other free draining Class I materials from native soils or select material backfill. Overlap fabric minimum of 12 inches beyond where another material stops contact with soil.

H. Place gravel aggregate, and other Class I materials, in uniform layers of 8-inch maximum thickness. Perform compaction by means of at least two passes of vibratory compactor.

3.07 FOUNDATION BASE.

A. Place foundation base after subgrade is properly prepared, including placement of foundation backfill where needed. Use foundation base consisting of 12-inch layer of gravel aggregate. Extend foundation base minimum of 12 inches beyond edge of structure foundation, unless shown otherwise on Drawings.

B. Where foundation base and foundation backfill are of same material, both can be placed in one operation.

3.08 BACKFILL

A. Complete backfill to surface of natural ground or to lines and grades shown on Drawings. Remove forms, lumber, trash and debris from structures. Use select fill for backfill. Existing material that qualifies as select material may be used, unless indicated otherwise on Drawings. Deposit backfill in uniform layers and compact each layer as specified.

B. Do not place backfill against concrete walls or similar structures until laboratory test breaks indicate that concrete has reached minimum of 85 percent of specified compressive strength. Where walls are supported by slabs or intermediate walls, do not begin backfill operations until slab or intermediate walls have been placed and concrete has attained sufficient strength.

C. Remove concrete forms before starting backfill and remove shoring and bracing as work progresses.

D. Maintain backfill material at no less than 2 percent below no more than 2 percent above optimum moisture content, unless otherwise approved by Engineer. Place fill material in uniform 8-inch maximum loose layers. Compact fill to at least 95 percent of maximum Standard Proctor Density according to ASTM D 698 below paved areas. Compact fill to at least 95 percent around structures below unpaved areas.

E. Where backfill is placed against sloped excavation surface, run compaction equipment across boundary of cut slope and backfill to form compacted slope surface for placement of next layer of backfill.

3.09 FIELD QUALITY CONTROL

A. Testing will be performed under provisions of Section 01454 - Testing Laboratory Services.

B. Tests will be performed initially on minimum of one different sample of each material type for plasticity characteristics, in accordance with ASTM D 4318, and for gradation characteristics, in accordance with Tex-101-E and Tex-110-E. Additional classification tests will be performed whenever there is noticeable change in material gradation or plasticity.

C. In-place density tests of compacted subgrade and backfill will be performed according to

ASTM D 1556, or ASTM D 2922 and ASTM D 3017, and at following frequencies and conditions:

1. Minimum of one test for every 50 to 100 cubic yards of compacted backfill material as directed by Engineer.

2. A minimum of three density tests for each full work shift.

3. Density tests will be performed in all placement areas.

4. Number of tests will be increased when inspection determines that soil types or moisture contents are not uniform or when compacting effort is variable and not considered sufficient to attain uniform density.

5. Identify elevation of test with respect to natural ground.

6. Record approximate depth of lift tested.

D. At least one test for moisture-density relationships will be initially performed for each type of backfill material in accordance with ASTM D 698. Perform additional moisture-density relationship test once a month or whenever there is noticeable change in material gradation or plasticity.

E. When tests indicate work does not meet specified compaction requirements, recondition, re-compact, and retest at Contractor's expense.

END OF SECTION - 02316

SECTION 02320

UTILITY BACKFILL MATERIALS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Material Classifications.

B. Utility Backfill Materials:

1. Pea gravel
2. Crushed aggregate
3. Bank run sand
7. Select backfill
8. Random backfill
9. Gravel

C. Material Handling and Quality Control Requirements.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No payment will be made for backfill material. Include payment in unit price for applicable utility installation.

2. Payment for backfill material, when included as separate pay item or when directed by Engineer, is on cubic yard basis for material placed and compacted within theoretical trench width limits and thickness of material according to Drawings, or as directed by Engineer.

3. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for work in this Section is included in total Stipulated Price.

1.03 DEFINITIONS

A. Unsuitable Material:

1. Materials classified as ML, CL-ML, MH, PT, OH, and OL according to ASTM D 2487.

2. Materials that cannot be compacted to required density due to gradation, plasticity, or moisture content.

3. Materials containing large clods, aggregates, or stones greater than 4 inches in any dimension; debris, vegetation, or waste; or any other deleterious materials.

4. Materials contaminated with hydrocarbons or other chemical contaminants.

B. Suitable Material:

1. Materials meeting specification requirements.

C. Foundation Backfill Materials: Natural soil or manufactured aggregate meeting Class I requirements and geotextile filter fabrics as required, to control drainage and material separation.

Foundation backfill material is placed and compacted as backfill where needed to provide stable support for structure foundation base. Foundation backfill materials may include concrete fill and seal slabs.

D. Foundation Base: Crushed stone aggregate with filter fabric as required, cement stabilized sand, or concrete seal slab. Foundation base provides smooth, level working surface for construction of concrete foundation.

E. Backfill Material: Classified soil material meeting specified quality requirements for designated application as embedment or trench zone backfill.

F. Embedment Material: Soil material placed under controlled conditions within embedment zone extending vertically upward from top of foundation to an elevation 12 inches above top of pipe, and including pipe bedding, haunching and initial backfill.

G. Trench Zone Backfill: Classified soil material meeting specified quality requirements and placed under controlled conditions in trench zone from top of embedment zone to base course in paved areas or to surface grading material in unpaved areas.

H. Foundation: Either suitable soil of trench bottom or material placed as backfill of over excavation for removal and replacement of unsuitable or otherwise unstable soils.

I. Source: Source selected by Contractor for supply of embedment or trench zone backfill material. Selected source may be project excavation, off-site borrow pits, commercial borrow pits, or sand and aggregate production or manufacturing plants.

J. Refer to Section 02317 - Excavation and Backfill for Utilities for other definitions regarding utility installation by trench construction.

1.04 REFERENCES

A. ASTM C 33 - Standard Specification for Concrete Aggregate.

B. ASTM C 40 - Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

C. ASTM C 123 - Standard Test Method for Lightweight Particles in Aggregate.

D. ASTM C 131 - Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in Los Angeles Machine.

E. ASTM C 136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.

F. ASTM C 142 - Standard Test Method for Clay Lumps and Friable Particles in aggregates.

G. ASTM D 1140 - Standard Test Method for Amount of Material in Soils Finer Than No. 200 Sieve.

H. ASTM D 2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

I. ASTM D 4318 - Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

J. ASTM D 4643 - Standard Test Method for Determination of Water (Moisture) Content of Soil by Microwave Oven Method.

K. TxDOT Tex-110-E - Determining Particle Size Analysis of Soils.

L. TxDOT Tex-460-A - Material Finer Than 75 □m (No.200) Sieve In Mineral Aggregates (Decantation Test for Concrete Aggregates).

1.05 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittal Procedures.

B. Submit description of source, material classification and product description, production method, and application of backfill materials.

C. Submit test results for samples of off-site backfill materials. Comply with Paragraph 2.03, Material Testing.

D. Before stockpiling materials, submit copy of approval from landowner for stockpiling backfill material on private property.

E. Provide delivery ticket which includes source location for each delivery of material that is obtained from off-site sources or is being paid as specific bid item.

1.06 TESTS

A. Perform tests of sources for backfill material in accordance with Paragraph 2.03B.

B. Verification tests of backfill materials may be performed by City in accordance with Section 01454 - Testing Laboratory Services and in accordance with Paragraph 3.03.

PART 2 P R O D U C T S

2.01 MATERIAL CLASSIFICATIONS

A. Classify materials for backfill for purpose of quality control in accordance with Unified Soil Classification Symbols as defined in ASTM D 2487. Material use and application is defined in utility installation specifications and Drawings either by class, as described in Paragraph 2.01B, or by product descriptions, as given in Paragraph 2.02.

B. Class Designations Based on Laboratory Testing:

1. Class I: Well-graded gravels and sands, gravel-sand mixtures, crushed well-graded rock, little or no fines (GW, SW):

   a. Plasticity index: non-plastic.

   b. Gradation: D60/D10 - greater than 4 percent; amount passing No. 200 sieve – less than or equal to 5 percent.

2. Class II: Poorly graded gravels and sands, silty gravels and sands, little to moderate fines (GM, GP, SP, SM):

   a. Plasticity index: non-plastic to 4.

   b. Gradations:

      1. Gradation (GP, SP): amount passing No. 200 sieve - less than 5 percent.

      2. Gradation (GM, SM): amount passing No. 200 sieve - between 12 percent and 50 percent.

      3. Borderline gradations with dual classifications (e.g., SP-SM): amount passing No. 200 sieve - between 5 percent and 12 percent.

3. Class III: Clayey gravels and sands, poorly graded mixtures of gravel, sand, silt, and clay (GC, SC, and dual classifications, e.g., SP-SC):

a. Plasticity index: greater than 7.

b. Gradation: amount passing No. 200 sieve - between 12 percent and 50 percent.

4. Class IVA: Lean clays (CL).

a. Plasticity Indexes:

1. Plasticity index: greater than 7, and above A line.

2. Borderline plasticity with dual classifications (CL-ML): PI between 4 and 7. b. Liquid limit: less than 50.

b. Gradation: amount passing No. 200 sieve - greater than 50 percent.

5. Class IVB: Fat clays (CH)

a. Plasticity index: above A line.

b. Liquid limit: 50 or greater.

c. Gradation: amount passing No. 200 sieve - greater than 50 percent. d. Inorganic.

6. Use soils with dual class designation according to ASTM D 2487, and which are not defined above, according to more restrictive class.

2.02 PRODUCT DESCRIPTIONS

A. Soils classified as silt (ML) silty clay (CL-ML with PI of 4 to 7), elastic silt (MH), organic clay and organic silt (OL, OH), and organic matter (PT) are not acceptable as backfill materials. These soils may be used for site grading and restoration in unimproved areas as approved by Engineer. Soils in Class IVB, fat clay (CH) may be used as backfill materials where allowed by applicable backfill installation specification. Refer to Section 02316 - Excavation and Backfill for Structures and Section 02317 - Excavation and Backfill for Utilities.

B. Provide backfill material that is free of stones greater than 6 inches, free of roots, waste, debris, trash, organic material, unstable material, non-soil matter, hydrocarbon or other contamination, conforming to following limits for deleterious materials:

1. Clay lumps: Less than 0.5 percent for Class I, and less than 2.0 percent for Class II, when tested in accordance with ASTM C 142.

2. Lightweight pieces: Less than 5 percent when tested in accordance with ASTM C 123.

3. Organic impurities: No color darker than standard color when tested in accordance with ASTM C 40.

C. Bank Run Sand: Durable bank run sand classified as SP, SW, or SM by Unified Soil Classification System (ASTM D 2487) meeting following requirements:

1. Less than 15 percent passing number 200 sieve when tested in accordance with ASTM D1140. Amount of clay lumps or balls may not exceed 2 percent.

2. Material passing number 40 sieve shall meet the following requirements when tested in accordance with ASTM D 4318: Plasticity index: not exceeding 7.

D. Pea Gravel: Durable particles composed of small, smooth, rounded stones or pebbles and graded within the following limits when tested in accordance with ASTM C 136:

Sieve Percent Passing

1/2"	100
3/8"	85 to 100
No. 4	10 to 30
No. 8	0 to 10
No. 16	0 to 5

H. Crushed Aggregates: Crushed aggregates consist of durable particles obtained from an approved source and meeting the following requirements:

1. Materials of one product delivered for same construction activity from single source, unless otherwise approved by Engineer.

2. Non-plastic fines.

3. Los Angeles abrasion test wear not exceeding 45 percent when tested in accordance with ASTM C 131.

4. Crushed aggregate shall have minimum of 90 percent of particles retained on No. 4 sieve with 2 or more crushed faces as determined by Tex-460-A, Part I.

5. Crushed stone: Produced from oversize plant processed stone or gravel, sized by crushing to predominantly angular particles from naturally occurring single source. Uncrushed gravel is not acceptable materials for embedment where crushed stone is shown on applicable utility embedment drawing details.

6. Gradations, as determined in accordance with Tex-110-E.

Sieve	Percent Passing by Weight for Pipe Embedment by Ranges of Nominal Pipes Sizes		
	>15"	15"- 8"	<8"
1"	95-100	100	
¾"	60-90	90-100	100
½"	25-60		90-100
3/8"		20-55	40-70
No. 4	0-5	0-10	0-15
No. 8		0-5	0-5

I. Select Backfill: Class III clayey gravel or sand or Class IV lean clay with plasticity index between 7 and 20.

J. Random Backfill: Any suitable soil or mixture of soils within Classes I, II, III and IV; or fat clay (CH) where allowed by applicable backfill installation specification. Refer to Section 02316 - Excavation and Backfill for Structures and Section 02317 - Excavation and Backfill for Utilities.

2.03 MATERIAL TESTING

A. Source Qualification. Perform testing to obtain tests by suppliers for selection of material sources and products not from the project site. Test samples of processed materials from current production representing material to be delivered. Use tests to verify that materials meet specification requirements. Repeat qualification test procedures each time source characteristics change or there is planned change in source location or supplier. Include the following qualification tests, as applicable:

1. Gradation. Report complete sieve analyses regardless of specified control sieves from largest particle through No. 200 sieve.

2. Plasticity of material passing No. 40 sieve

3. Los Angeles abrasion wear of material retained on No. 4 sieve

4. Clay lumps

5. Lightweight pieces

6. Organic impurities

B. Production Testing. Provide reports to Engineer from an independent testing laboratory that backfill materials to be placed in Work meet applicable specification requirements.

C. Assist Owner in obtaining material samples for verification testing at source or at production plant.

PART 3 EXECUTION

3.01 SOURCES

A. Use of existing material in trench excavations is acceptable, provided applicable specification requirements are satisfied.

B. Identify off-site sources for backfill materials at least 14 days ahead of intended use so that Owner may obtain samples for verification testing.

C. Materials may be subjected to inspection or additional verification testing after delivery. Materials which do not meet requirements of specifications will be rejected. Do not use material which, after approval, has become unsuitable for use due to segregation, mixing with other materials, or by contamination.

D. Bank run sand, select backfill, and random backfill, if available in project excavation, may beobtained by selective excavation and acceptance testing. Obtain additional quantities of these materials and other materials required to complete work from off-site sources.

E. Owner does not represent or guarantee that any soil found in excavation work will be suitable and acceptable as backfill material.

3.02 MATERIAL HANDLING

A. When backfill material is obtained from either commercial or non-commercial borrow pit, open pit to expose vertical faces of various strata for identification and selection of approved material to be used. Excavate selected material by vertical cuts extending through exposed strata to achieve uniformity in product.

B. Establish temporary stockpile locations for practical material handling, control, and verification testing by Engineer in advance of final placement. Obtain approval from landowner for storage of backfill material on adjacent private property.

C. When stockpiling backfill material near project site, use appropriate covers to eliminate blowing of materials into adjacent areas and prevent runoff containing sediments from entering drainage system.

D. Place stockpiles in layers to avoid segregation of processed materials. Load material by making successive vertical cuts through entire depth of stockpile.

3.03 FIELD QUALITY CONTROL

A. Quality Control

1. The Engineer may sample and test backfill at:

a. Sources including borrow pits, production plants and Contractor's designated off-site stockpiles.

b. On-site stockpiles.

c. Materials placed in Work.

2. The Engineer may re-sample material at any stage of work or location if changes in characteristics are apparent.

B. Production Verification Testing: Owner's testing laboratory will provide verification testing on backfill materials, as directed by Engineer. Samples may be taken at source or at production plant, as applicable.

END OF SECTION - 02320

Section 02330

EMBANKMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Construction of embankments with excess excavated material and borrow.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No separate payment will be made for material embankment under this section. Include payment in unit price for excavation or borrow.

B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

A. ASTM D 698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3)).

B. ASTM D 2922 – Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

C. ASTM D 3017 – Standard Test Method for Water content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

PART 2 PRODUCTS

2.01 MATERIALS

A. Refer to Section 02315 – Roadway Excavation for acceptable excess materials from roadway excavation.

B. Refer to Section 02317 – Excavation and Backfill For Utilities for acceptable excess materials from utility excavation and trenching.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify borrow and excess excavated materials to be reused are approved.

B. Verify removals and clearing and grubbing operations have been completed.

3.02 PREPARATION

A. Backfill tests pits, stump holes, small swales and other surface irregularities. Backfill and compact in designated lift depths to requirements for embankment compaction.

B. Record location and plug and fill inactive water and oil wells. Conform to Texas State Health Department, Texas Commission on Environmental Quality and Texas Railroad Commission requirements. Notify Project Manager prior to plugging wells.

C. Excavate and dispose of unsuitable soil and other unsuitable materials which will not consolidate. Backfill and compact to requirements for embankment. Unsuitable soil is defined in Section 02316 – Excavation and Backfill for Structures and Section 02320 – Utility Backfill Materials.

D. Backfill new utilities below future grade. Conform to requirements of each respective section.

3.03 PROTECTION

A. Protect trees, shrubs, lawns, existing structures, and other features outside of embankment limits.

B. Protect utilities above and below grade, which are to remain.

C. Conform to protection requirements of Section 02315 – Roadway Excavation.

3.04 PLACING EMBANKMENT

A. Do not conduct placement operations during inclement weather or when existing ground or fill materials exceed 3 percent of optimum moisture content. Contractor may manipulate wet material to facilitate drying, by disking or windrowing.

B. Do not place embankment fill until density and moisture content of previously placed material comply with the specified requirements.

C. Scarify areas to be filled to minimum depth of 4 inches to bond existing and new materials. Mix with first fill layer.

D. Spread fill material evenly, from dumped piles or windrows, into horizontal layers approximately parallel to finished grade. Place to meet specified compacted thickness. Break clods and lumps and mix materials by blading, harrowing, disking or other approved method. Extend each layer across full width of fill.

E. Each layer shall be homogenous and contain uniform moisture content before compaction. Mix dissimilar abutting materials to prevent abrupt changes in composition of fill.

F. Layers shall not exceed the following compacted thickness:

1. Areas indicated to be under future paving or shoulders, to be constructed within 6 months: 6 inches when compacted with pneumatic rollers, or 8 inches when compacted with other rollers.

2. Other areas: 12 inches

G. For steep slopes, cut benches into slope and scarify before placing fill. Place increasingly wider horizontal layers of specified depth to level of each bench.

H. Build embankment layers on back slopes, adjacent to existing roadbeds, to level of old roadbed. Scarify top of old roadbed to minimum depth of 4 inches and recompact with next fill layer.

I. Construct to lines and grades shown on Drawings.

J. Remove unsuitable material and excess soil not being used for embankment from site in accordance with requirements of Section 01576 – Waste Material Disposal.

K. Maintain moisture content of embankment materials to attain required density.

L. Compact to following minimum densities at moisture content of optimum to 3 percent above optimum as determined by ASTM D 698, unless otherwise indicated on Drawings:

1. Areas under future paving and shoulders: Minimum density of 95 percent of maximum dry density.

2. Other areas: Minimum density of 90 percent of maximum dry density.

3.05 TOLERANCES

A. Top of Compacted Surface: Plus or minus 1/2 inch in cross section or 16 foot length.

3.06 FIELD QUALITY CONTROL

A. Compaction testing will be performed in accordance with ASTM D 698 or ASTM D 2922 and ASTM D 3017 under provisions of Section 01454 - Testing Laboratory Services.

B. A minimum of three tests will be taken for each 1000 linear feet per lane of roadway or 500 square yards of embankment per lift.

C. If tests indicate work does not meet specified compaction requirements, recondition, recompact, and retest at no additional cost to the Owner.

END OF SECTION

SECTION 02711

CHAIN LINK FENCE

PART 1 GENERAL

1.01 DESCRIPTION

A. Work under this section includes furnishing and installation of all chain link fence, grates, and accessories complete with all required accessories, as shown on the drawings and as specified herein.

B. Refer to the following Sections for related work:
1. Section 02220 - Earth Work
2. Section 03300 - Cast-In-Place Concrete

1.02 QUALITY ASSURANCE

A. Steel pipe for posts and accessories shall be hot dip galvanized conforming to provisions of ASTM A-123 for zinc coating.

B. Chain link fabric shall conform to ASTM A-392 Class 2 for wire galvanized coating.

1.03 SUBMITTALS

A. Submit complete installation shop drawings showing placement of posts, bracing and gates. Do not begin work prior to approval of submittal.

PART 2 PRODUCT

2.01 MATERIALS

A. Gate posts shall be schedule 0 pipe 2-7/8 inch outside diameter for single gates 6 feet or less in width and double gates 12 feet or less in width for fences less than 72 inches high. Rolling gates shall be supported on rolling wheels at the top of the gate. Minimum clearance shall be 1 foot.

B. End, corner and slope posts shall be schedule 0 pipe 2-3/8 inch outside diameter for fences less than 72 inches high.

C. Line posts shall be schedule 0 pipe 1-7/8 inch outside diameter for fences less than 72 inches high.

D. Top rail shall be schedule 0 pipe 1-5/8 inch outside diameter.

E. Horizontal braces shall be schedule 0 pipe 1-5/8 inch outside diameter with 3/8 inch truss rod at all gate and terminal posts.

F. Chain link fabric shall be woven from 9 gage wire with knuckled finish top and bottom edges.

G. Gate frames shall be schedule 0 pipe 1-7/8 inch outside diameter.

H. All incidental fittings, braces, post caps, gate hinges shall be manufacturer's standard metal fittings, coated as previously specified for posts.

2.02 FABRICATION

A. Fabricate all components form new ferrous galvanized materials. Chain link fabric to be galvanized after fabrication.

PART 3 EXECUTION

3.01 PREPARATION

A. Verify location of fencing with approved shop drawings and layout of property.

3.02 INSTALLATION

A. Footings shall be concrete a minimum of 8 inches diameter. Footings for line posts shall be at least 3 feet deep, gate posts shall be at least 4 feet deep. Crown footings to shed water. Concrete shall meet Section 03300 requirements. Line posts at 10 feet o.c. maximum. The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within 7 days after the individual post footing is completed.

B. Attach fabric, bracing, gates and accessories in conformance with manufacturer's standard. Fabric to be placed on outward facing side of posts. Gates shall have provision for padlock security fastening.

C. The top rail shall be continuous and shall pass through the post tops. The coupling used to join the top rail lengths shall allow for expansion.

D. Horizontal brace rails, with diagonal truss rods and turnbuckles, shall be installed at all terminal posts.

E. The wire fabric shall be firmly attached to the posts and braced in the manner shown on the plans. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground, with the bottom of the fence fabric no less than 1 inch or more than 4 inches from the ground surface. Grading shall be performed where necessary to provide a neat appearance.

3.03 CLEANUP

A. Inspect fence, touch-up any damaged finish, remove all work related debris.

END OF SECTION

Section 02740

ASPHALT OVERLAY AND BASE REPAIR

PART 1 GENERAL

1.01 SECTION INCLUDES

A. This item shall consist of repairing the existing pavement and base, installation of asphaltic concrete level-up course, and asphaltic concrete overlay as herein specified and in conformity with typical sections, lines and grades shown on the plans and established by the Engineer.

1.02 MEASUREMENT AND PAYMENT

A. Tack Coat will be measured at the point of application to the street in gallons at the applied temperature. Hot mixed asphalt pavement shall be measured by the number of square yards complete in-place.

B. Hot mixed asphalt will be measured by the number of square yards complete in-place.

C. The work performed and materials furnished as prescribed by this item and measured as provided under "Measurement" will be paid for at the unit price bid for:

a. "Tack Coat"
b. "Hot Mixed Asphaltic Pavement, Type "D"

D. The unit bid price shall be full compensation for furnishing all material, freight, heating, mixing, hauling, cleaning of the existing base course or pavement, pavement preparation, tack coat, placing asphaltic concrete mixture, rolling and finishing, and for all manipulations, labor, tools, equipment and incidentals necessary to complete the work.

1.03 REFERENCES – Not Used

1.04 SUBMITTALS – Not Used

PART 2 PRODUCTS

2.01 MATERIALS

E. Hot Mix Asphaltic Concrete: The hot mix asphaltic concrete shall conform to the requirements of the Texas Department of Transportation 1993 Specifications, Item 340. The paving mixture to be used shall be type designated on the plans. The Contractor shall provide appropriate documentation from the producer and a commercial laboratory that the hot mix asphaltic concrete used in the overlay meets these requirements. The asphalt to be used shall be A.C. 10.

F. Tack Coat shall be AC-5

PART 3 EXECUTION

3.01 PREPARATION

A. The pavement surface shall be dry free of dirt, grease and loose material. All "pot holes" shall be cleaned, primed and repaired with hot mix asphaltic concrete. Large cracks (greater than ¼

inch) shall be filled with AC-5. Level-up course shall be applied as needed and as directed by the Engineer.

3.03 BASE REPAIR

A. The existing base and asphaltic mat to be scarified and reshaped shall first be cleaned of all dirt, vegetation or other objectionable materials, and then scarified to a minimum depth of 6 inches. In no case shall the underlying sub-grade be disturbed. The asphaltic mat may either be removed and disposed of by the Contractor or broken into particles not more than 2 inches in their greatest dimensions. Caliche base shall be added as necessary to bring the surface to finish shape and grade as shown on the plans. Such caliche added shall be subsidiary to the various pay items.

B. The reshaped surface and base 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 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. In that area on which pavement is to be placed, any deviation in excess of ¼ inch in cross-section in a length of 12 feet measured longitudinally shall be corrected by loosening, adding or removing material reshaping and re-compacting by sprinkling and rolling. All irregularities, depressions or weak spots which develop shall be corrected immediately by scarifying the areas affected, adding suitable material as required, reshaping and re-compacting by sprinkling and rolling.

C. The Contractor shall "proof roll" the finish surface and directed by the Engineer to determine any weak spots. The "proof rolling" will be done with a loaded water truck (2000 gallon maximum).

D. "Base Repair" is specified based on the assumption that the underlying courses have not failed and have adequate strength to support the loads applied to them during construction. The Contractor may "proof roll" the area designated for "scarify and reshape surface and base" before beginning work. If such "proof rolling" indicates failure in the underlying courses a "change order" will be made to pay for the additional work to repair the underlying courses. Once work has begun on an area, the Contractor shall be responsible for any failures in the underlying courses. Should the areas of "scarified and reshaped surface and base", due to any reason or cause, lose the required stability, density and finish before the surfacing is complete, it shall be re-compacted and refinished at the sole expense of the Contractor. Prime coat shall be subsidiary to "Scarify and Reshape Surface and Base".

3.04 TACK COAT

A. Tack coat shall be sprayed uniformly in one pass at a spray width of the existing roadway. The tack coat shall not be placed more than 1 inch onto the lip of the "Curb and Gutter", "Valley Gutter" or edge of pavement. The tack coat shall be uniformly metered at the rate specified on the plans with a tolerance of plus or minus 0.05 gallons per square yard. Any excessive spills shall be removed and any obvious deviation from the rate specified will be rejected by the Engineer.

3.05 HOT MIX ASPHALTIC CONCRETE (HMAC)

A. The prime coat, tack coat or the asphaltic mixture when placed with a spreading and finishing machine; shall not be placed when the air temperature is below 50° F and is falling, but it may be placed when the air temperature is above 50°F and is rising.

B. The air temperature shall be taken in the shade away from artificial heat. It is further provided that the prime coat, tack coat, or asphaltic mixture shall be placed only when the humidity, general weather conditions, and temperature and moisture condition of the base, in the opinion of the Engineer, are suitable.

C. If the temperature of the asphaltic mixture of a load or any part of a load becomes less than 225°F or more than 350°F after being dumped from the mixer and prior to passing through the lay-down machine, all or any part of the load may be rejected.

a. Prime Coat: A prime coat shall be applied at the rate shown on the plans. The application temperature shall be as provided above. The tack coat or asphaltic concrete shall not be applied on a previously primed flexible base until the primed base has completely cured to the satisfaction of the Engineer.

b. Tack Coat: Before the asphaltic mixture is laid, the surface upon which the tack coat is to be placed shall be cleaned thoroughly to the satisfaction of the Engineer. The surface shall be given a uniform application of tack coat using asphaltic materials specified in the plans. This tack coat shall be applied, as directed by the Engineer, with an approved sprayer at a rate not to exceed 0.10 gallons per square yard or surface. All contact surfaces of curbs and structures and all joints shall be painted with a thin uniform coat of the asphaltic material meeting the requirements for tack coat. The tack coat shall be rolled with a pneumatic tire roller when directed by the Engineer.

c. Transporting Asphaltic Concrete: The asphaltic mixture, prepared as specified above, shall be hauled to the work in tight vehicles previously cleaned of all foreign material. The dispatching of the vehicles shall be arranged so that all material delivered may be placed, and all rolling shall be completed during daylight hours. In cool weather or for long hauls, canvas covers and insulating of the truck bodies may be required. The inside of the truck body may be given a light coating of oil, lime slurry or other material satisfactory to the Engineer, if necessary, to prevent mixture from adhering to the body.

d. Placing:

i. Generally, the asphaltic mixture shall be dumped and spread on the approved prepared surface with specified spreading and finishing machine, in such manner that when properly compacted the finished pavement will be smooth, of uniform density and will meet the requirement of the typical cross sections and the surface tests. During the application of asphaltic materials, care shall be taken to prevent splattering of adjacent pavement; curb and gutter and structures.

ii. In placing a level-up course with the spreading and finishing machine, binder twine or cord shall be set to line and grade established by the Engineer. If approved by the Engineer, level-up courses may be spread with a motor grader.

iii. When the asphaltic mixture is placed in a narrow strip along the edge of an existing pavement, or used to level up small areas of an existing pavement or placed in small irregular areas where the use of a finishing machine is not practical, the finishing machine may be eliminated when authorized by the Engineer, provided a satisfactory surface can be obtained by other approved methods.

iv. Flush Structures. Adjacent to flush curbs, gutters, liners and structures, the surface shall be finished uniformly high so that when compacted it will be slightly above the edge of the curb or flush structure.

e. Compacting:

i. Rolling with the three wheel and tandem rollers shall start longitudinally at the sides and proceed toward the center of the pavement, overlapping on successive trips by at least half the width of the rear wheel unless otherwise directed by the Engineer. Alternate trips of the roller shall be slightly different in

length. On super-elevated curves, rolling shall begin at the low side and progress toward the high side unless otherwise directed by the Engineer. Rolling with pneumatic-tire roller shall be done as needed. Rolling shall be continued until no further compression can be obtained and all roller marks are eliminated. One tandem roller, one pneumatic-tire roller and at least one three wheel roller, as specified above shall be provided for each job. If the Contractor elects, he may substitute the three axle tandem roller for the two axle tandem roller and/or the three wheel roller; but in no case shall less than three roller be in use on each job. Additional rollers shall be provided if needed. The motion of the roller shall be slow enough at all times to avoid displacement of the mixture. If any displacement occurs, it shall be corrected at once by the use of rakes and of fresh mixtures where required. The roller shall not be allowed to stand on pavement which has not been fully compacted. To prevent adhesion of the surface mixture to the roller, the wheels shall be kept thoroughly moistened with water, but an excess of water will not be permitted. All rollers must be in good mechanical condition. Necessary precautions shall be taken to prevent the dropping of gasoline, oil, grease or other foreign matter on the pavement, either when the rollers are in operation or when standing.

ii. In lieu of the rolling equipment specified, the Contractor may, upon written permission from the Engineer, operate other compacting equipment that will produce equivalent relative compaction as the specified equipment. If the substituted compaction equipment fails to produce the desired compaction as would be expected of the specified equipment, as determined by the Engineer, its use shall be discontinued.

iii. Hand Tamping: The edges of the pavement along curbs, headers and similar structures, and all places not accessible to the roller, or in such positions as will not allow thorough compaction with the rollers, shall be thoroughly compacted with lightly oiled tamps.

f. Opening to Traffic:

i. The pavement shall be opened to traffic when directed by the Engineer. The Contractor's attention is directed to the fact that all construction traffic allowed on pavement open to the public will be subject to the laws governing traffic on Public Roads and Streets.

ii. If the surface ravels, it will be the Contractor's responsibility to correct this condition at this expense.

g. Density Test - Acceptance Sampling and Testing of Hot Mix Asphaltic Concrete (Compaction):

i. Hot Mix Asphaltic Concrete will be accepted for density on a lot basis. A lot will consist of one day's production or 1,200 tons, whichever is less and shall be divided into four equal sublots. One test shall be made for each sublot.

ii. Each lot of pavement will be accepted, with respect to density, when the average field density is equal to or greater than 92 percent of the average maximum theoretical density as determined in accordance with ASTM D2041, and when no individual determination is less than 91.0 percent of the average maximum theoretical density. Four field density determinations will be made for each lot. Cores or sawed samples taken from the pavement will be used to determine the field density. The density of the cored or sawed samples shall be determined in accordance with ASTM D2726.

iii. The same specimen shall be used for determining both the maximum theoretical density and field density. Specimens used for field density determination shall be carefully crumbled, using heat if necessary, and maximum theoretical density determined in accordance with ASTM D2041. If heating is necessary, the specimen shall be heated to the lowest temperature required for proper preparation of the sample.

iv. The use of nuclear field density determination shall not be used as the basis for acceptance with respect density.

Table 8
Sliding Scale Pay Factors
(Density Based on Percent of Maximum Theoretical)

Average Percent Density*	Recommended Percent Payment
92 or above	100
91.0 - 91.9	90
Below 91.0	Reject **

* Average of 4 samples.
** If the Owner agrees to accept densities below 91.0%, the pay factor for density shall be 50%.

h. Surface Tests:

i. Tests for conformity with the specified crown and grade shall be made by the Contractor immediately after final rolling. Any variation exceeding the specified tolerances shall immediately be corrected by removing the defective work and replacing with new material, as directed by the Engineer. Any correction required shall be at the sole expense of the Contractor.

ii. For surface course, the finished surface shall not vary more than ¼ inch (6.35 mm) when tested with a 16-foot straightedge applied parallel with, or at right angles to, the centerline.

iii. The finished surfaces of hot mix asphaltic concrete shall not vary from the grade line, elevations and cross sections shown on the plans by more than ½ inch (12.7 mm). The Contractor shall correct pavement areas varying in excess of this amount by removing and replacing the defective work. Skin patching shall not be permitted for correction of low areas nor shall planning be permitted for correction of high areas.

i. Sampling Pavement:

i. Samples for determination of thickness and density of completed pavements shall be obtained by the Contractor at no extra cost. The size, number and locations of the samples will be as directed by the Engineer. Samples shall be neatly cut with a saw, core drill or other approved equipment. The Contractor shall furnish all tools, labor and materials for cutting samples and replacing pavement.

ii. All tests necessary to determine conformance with the specified requirements will be performed without cost to the Contractor; however, any required retests shall be performed at the Contractor's cost.

END OF SECTION

Section 02741

ASPHALTIC CONCRETE PAVEMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface courses of compacted mixture of coarse and fine aggregates and asphaltic material.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. Payment for asphaltic concrete pavement is on square yard basis. Separate pay items re used for each different required thickness of pavement.

2. Payment for asphaltic concrete pavement includes payment for associated work performed in accordance with Section 02743 - Tack Coat.

3. Payment for asphaltic concrete in miscellaneous areas is on a square yard basis. Miscellaneous areas include tie-in to existing driveways.

4. No separate payment will be made under this section for asphaltic concrete provided for Section 02951-Pavement Replacement for Utility Construction

5. Refer to Paragraph 3.08 for unit price adjustments.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

A. ASTM C 33 - Standard Specification for Concrete Aggregates.

B. ASTM C 131 - Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

C. ASTM C 136 - Standard Method for Sieve Analysis of Fine and Coarse Aggregates.

D. TxDOT Tex-126-E - Molding, Testing, and Evaluation of Bituminous Black Base Material.

E. TxDOT Tex-106-E - Method of Calculating the Plasticity Index of Soils.

F. TxDOT Tex-203-F - Sand Equivalent Test.

G. TxDOT Tex-204-F - Design of Bituminous Mixtures.

H. TxDOT Tex-207-F - Determination of Density of Compacted Bituminous Mixtures.

I. TxDOT Tex-208-F - Test for Stabilometer Value of Bituminous Mixtures.

J. TxDOT Tex-217-F - Determination of Deleterious Material and Decantation Test for

Coarse Aggregates.

K. TxDOT Tex-227-F - Theoretical Maximum Specific Gravity of Bituminous Mixtures

1.04 SUBMITTALS

A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.

B. Submit certificates that asphaltic materials and aggregates meet requirements of Article 2.01, Materials, of this Section.

C. Submit proposed design mix and test data for each type and strength of surface course in Work.

D. Submit manufacturer's description and characteristics of mixing plant for approval.

D. Submit manufacturer's description and characteristics of spreading and finishing machine for approval.

PART 2 P R O D U C T S

2.01 MATERIALS

A. Coarse Aggregate: Gravel or crushed stone, or combination thereof, that is retained on No. 10 sieve, uniform in quality throughout and free from dirt, organic or other injurious matter occurring either free or as coating on aggregate. Aggregate shall conform to ASTM C 33 except for gradation. Furnish rock or gravel with Los Angeles abrasion loss not to exceed 40 percent by weight when tested in accordance with ASTM C 131.

B. Fine Aggregate: Sand or stone screenings or combination of both passing No. 10 sieve. Aggregate shall conform to ASTM C 33 except for gradation. Use sand composed of sound, durable stone particles free from loams or other injurious foreign matter. Furnish screenings of same or similar material as specified for coarse aggregate. Plasticity index of that part of fine aggregate passing No. 40 sieve shall be not more than 6 when tested by Tex-106-E. Sand equivalent shall have a minimum value of 45 when tested by Tex-203-F.

C. Composite Aggregate: Conform to following limits when graded in accordance with ASTM C 136.

GRADUATION OF COMPOSITE AGGREGATE	
Sieve Size	**Percent Passing**
1/2"	100
3/8"	85 to 100
#4	50 to 70
#10	32 to 42
#40	11 to 26
#80	4 to 14
#200	1 to 6*
*2 to 8 when Test Method Tex – 200 - F, Part II (Washed Sieve Analysis) is used	

D. Asphaltic Material: Moisture-free homogeneous material which will not foam when heated to 347 degrees F, meeting following requirements:

VISCOSITY GRADE				
	AC-10		AC-20	
TEST	Min.	Max.	Min.	Max.
Viscosity, 140° F stokes	1000	± 200	2000	± 400
Viscosity, 275° F stokes	1.9	-	2.5	-
Penetration, 77° F, 100g, 5 sec.	85	-	55	-
Flash Point, C.O.C., F.	450	-	450	-
Solubility in trichloroethylene, percent	99.0	-	99.0	-
Tests on residues from thin film oven tests:				
Viscosity, 140° F stokes		3000	-	6000
Ductility, 77° F, 5 cms per min., cms	100	-	70	-
Spot tests	Negative for all grades			

1. Material shall not be cracked.

2.02 EQUIPMENT

A. Mixing Plant: Weight-batching or drum mix plant with capacity for producing Continuously mixtures meeting specifications. Plant shall have satisfactory conveyors, power units, aggregate handling equipment, hot aggregate screens and bins, and dust collectors. Provide equipment to supply materials adequately in accordance with rated capacity of plant and produce finished material within specified tolerances. Following equipment is essential:

1. Cold aggregate bins and proportioning device.
2. Dryer.
3. Screens.
4. Aggregate weight box and batching scales.
5. Mixer.
6. Asphalt storage and heating devices.
7. Asphalt measuring devices.
8. Truck scales.

B. Bins: Separate aggregate into minimum of four bins to produce consistently uniform grading and asphalt content in completed mix.

2.03 MIXES

A. Employ a certified testing laboratory to prepare design mixes. Test in accordance with Tex-126-E or Tex-204-F and Tex-208-F.

B. Density and Stability Requirements:

Percent Density Min.	Max.	Percent Optimum	HVEEM Stability Percent Not Less Than
94.5	97.5	96	35

C. Proportions for Asphaltic Material: Provide 4 to 8 percent of mixture by weight. Aggregate by weight shall not contain more than 1.0 percent by weight of fine dust, clay-like particles, or silt when tested in accordance with Tex-217-F, Part II.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify compacted base course is ready to support imposed loads.

B. Verify lines and grades are correct.

3.02 PREPARATION

A. Prime Coat: If indicated on the Drawings, apply a prime coat conforming to requirements of Section 02742 - Prime Coat. Do not apply a tack coat until primed base has cured to satisfaction of Resident Project Representative.

B. Tack Coat: Conform to requirements of Section 02743 - Tack Coat.

C. Prepare sub-grade in advance of asphaltic concrete paving operation.

D. Do not use cutback asphalt during the period of April 16 to September 15.

3.03 PLACEMENT

A. Do not place asphaltic mixture when air temperature is below 50 degrees F and falling. Mixture may be placed when air temperature taken in shade and away from artificial heat is above 40 degrees F and rising.

B. Haul prepared and heated asphaltic concrete mixture to the project in tight vehicles previously cleaned of foreign material. Mixture shall be at temperature between 250 degrees F and 325 degrees F when laid.

C. Spread material into place with approved mechanical spreading and finishing machine of screening or tamping type.

D. Surface Course Material: Surface course 2 inches or less in thickness may be spread in one lift. Spread lifts in such manner that, when compacted, finished course will be smooth, of uniform density, and will be to section, line and grade as shown. Place construction joints on surface courses to coincide with lane lines or as directed by Resident Project Representative.

E. Place courses as nearly continuously as possible. Pass roller over unprotected ends of Freshly laid mixture only when mixture has cooled. When work is resumed, cut back laid material to produce slightly beveled edge for full thickness of course. Remove old material which has been cut away and lay new mix against fresh cut.

F. When new asphalt is laid against existing or old asphalt, existing or old asphalt shall be saw cut full depth to provide straight smooth joint.

G. In restricted areas where use of paver is impractical, spread and finish asphalt by Mechanical compactor. Use wood or steel forms, rigidly supported to assure correct grade and cross section. Carefully place materials to avoid segregation of mix. Do not broadcast material. Remove any lumps that do not break down readily. Place asphalt courses in same sequence as if placed by machine.

3.04 COMPACTION

A. Begin rolling while pavement is still hot and as soon as it will bear roller without undue displacement or hair cracking. Keep wheels properly moistened with water to prevent adhesion of surface mixture. Do not use excessive water.

B. Compress surface thoroughly and uniformly, first with power-driven, 3-wheel, or tandem rollers weighing from 8 to 10 tons. Obtain subsequent compression by starting at side and rolling longitudinally toward center of pavement, overlapping on successive trips by at least one-half width of rear wheels. Make alternate trips slightly different in length. Continue rolling until no further compression can be obtained and rolling marks are eliminated. Complete rolling before mixture temperature drops below 175 degrees F.

C. Use tandem roller for final rolling. Double coverage with approved pneumatic roller on asphaltic concrete surface is acceptable after flat wheel and tandem rolling has been completed.

D. Along walls, curbs, headers and similar structures, and in locations not accessible to rollers, compact mixture thoroughly with lightly oiled tamps.

E. Compact binder course and surface course to density not less than 94 percent nor more than 98 percent of the maximum possible density of voidless mixture composed of same materials in like proportions.

3.05 TOLERANCES

A. Furnish templates for checking surface in finished sections. Maximum deflection of templates, when supported at center, shall not exceed 1/8 inch.

B. Completed surface, when tested with 10-foot straightedge laid parallel to center line of pavement, shall show no deviation in excess of 1/8 inch in 10 feet. Correct any surface not meeting this requirement.

3.06 FIELD QUALITY CONTROL

A. Testing will be performed under provisions of Section 01454 - Testing Laboratory Services.

B. Minimum of one core will be taken at random locations per 1000 feet per lane of roadway or 500 square yards of base to determine in-place depth and density.

C. In-place density will be determined in accordance with Tex-207-F and Tex-227-F from cores or sections. Other methods of determining in-place density, which correlate satisfactorily with results obtained from roadway specimens, may be used when approved by Engineer.

D. Contractor may, at his own expense, request three additional cores in vicinity of cores indicating nonconforming in-place depths. In-place depth at these locations shall be average depth of four cores.

E. Fill cores and density test sections with new compacted asphaltic concrete.

3.07 NONCONFORMING PAVEMENT

A. Remove and replace any non – conforming pavement.

B. Remove and replace areas of asphalt found deficient in thickness by more than 10 percent. Use new asphaltic base of thickness shown on Drawings.

C. Replace nonconforming pavement sections.

3.08 UNIT PRICE ADJUSTMENT

A. Unit price adjustments shall be made for in-place depth determined by cores as follows:

1. Reference Section 02740 Asphalt Overlay and Base Repair.

3.09 PROTECTION

A. Do not open pavement to traffic until 12 hours after completion of rolling, or as shown on Drawings.

B. Maintain asphaltic concrete pavement in good condition until completion of Work.

C. Repair defects immediately by replacing asphaltic concrete pavement to full depth.

END OF SECTION

Section 02742

PRIME COAT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Prime coat for asphaltic concrete paving

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No separate payment will be made for prime coat under this Section. Include payment in unit price for material being primed.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 SUBMITTALS

A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.

B. Submit product data for proposed prime coat.

C. Submit report of recent calibration of distributor.

PART 2 PRODUCTS

A. Cutback Asphalt

B. Provide moisture-free homogeneous material which will not foam when heated to 347 degrees F and which meets following requirements:

C. Asphalt material for prime coat shall be MC-30 or MC-70 and shall meet following requirements:

PROPERTIES	TYPE - GRADE			
	MC-30		MC-70	
	MIN.	MAX.	MIN.	MAX.
Water, Percent	---	0.2	---	0.2
Flash Point, T.O.C., °F	100	---	100	---
Kinematic Viscosity at 140°F, cst	30	60	70	140

2. Distillate shall be as follows, expressed as percent by volume of total distillate to 680 degrees F:

TEMPERATURE	TYPE-GRADE			
	MC-30		MC-70	
	MIN.	MAX.	MIN.	MAX.

to 437°F	---	25	---	20
to 500°F	40	70	20	60
to 600°F	75	93	65	90
Residue from 680°F Distillation, Volume, Percent	50	---	55	---

3. Tests on Distillation Residue:

TEST	TYPE-GRADE			
	MC-30		MC-70	
	MIN.	MAX.	MIN.	MAX.
Penetration at 77°F, 100g, 5 sec., cm	120	250	120	250
Ductility at 77°F, 5 cm/min., cm	100*	---	100*	---
Solubility in Trichloroethylene, %	99	---	99	---
Spot Test	All Negative			

*If penetration of residue is more than 200 and ductility at 77 degrees F is less than 100 cm, material will be acceptable if its ductility at 60 degrees F is more than 100 cm.

2.02 EMULSIFIED PETROLEUM RESIN

A. EPR-1 Prime: Slow curing emulsion of petroleum resin and asphalt cement conforming to the following requirements:

PROPERTIES	MIN.	MAX.
Fural Viscosity at 77°F, Sec	14	40
Residue by Evaporation, % by Weight	60	-
Sieve Test, %	-	0.1
Particle Charge Test	Positive	
Tests on the Distillation Residue:		
Flash Point, COC (F)	400	-
Kinematic Viscosity @ 140 F (cst)	190	350

B. For use, EPR-1 may be diluted with water up to a maximum three parts water to one part EPR-1 in order to achieve desired concentration of residual resin/asphalt to facilitate application.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify base is ready to support imposed loads.
B. Verify lines and grades are correct.

3.02 PREPARATION

A. Thoroughly clean base course surface of loose material by brooming prior to application of prime coat.

B. Prepare sufficient base in advance of paving for efficient operations.

3.03 APPLICATION, BASIC

A. Apply prime coat with approved type of self-propelled pressure distributor. Distribute prime coat evenly and smoothly under pressure necessary for proper distribution.

B. Keep storage tanks, piping, retorts, booster tanks, and distributors used in handling asphaltic materials clean and in good operating condition. Conduct operations so that asphaltic material does not become contaminated.

C. If yield of asphaltic material appears to be in error, recalibrate distributor prior to continuing work.

D. Maintain the surface until Work is accepted by Owner.

3.04 APPLICATION, CUTBACK ASPHALT

A. Do not place prime coat when air temperature is below 60 degrees F and falling. Materials may be placed when air temperature taken in shade and away from artificial heat is above 50 degrees F and rising.

B. Distribute at rate of 0.25 to 0.35 gallons per square yard.

C. Equipment shall be capable of reporting temperature of asphaltic material in heating equipment and in distributor, for determining rate of application, and for obtaining uniformity at junction of two distributor loads. Maintain in accurate working order, including recording thermometer at storage heating unit at all times.

D. Temperature of application shall be based on temperature-viscosity relationship that will permit application of asphalt with viscosity of 100 to 125 centistokes. Maintain asphalt within 15 degrees F of temperature required to meet viscosity. Selected temperature shall be within following range.

Prime Coat Type	Minimum (°F)	Maximum (°F)
MC-30	70	150
MC-70	125	175

E. Do not allow temperature of MC-30 to exceed 175 degrees F at any time.

F. Do not allow temperature of MC-70 to exceed 200 degrees F at any time.

3.05 APPLICATION, EMULSIFIED PETROLEUM RESIN

A. Do not place prime coat when air temperature is below 36 degrees F and falling.

B. Distribute at rate of 0.15 to 0.25 gallons per square yard.

3.06 PROTECTION

A. Prevent traffic or placement of subsequent courses over freshly applied prime coat until authorized by Resident Project Representative.

END OF SECTION

Section 02743

TACK COAT

PART 1 G E N E R A L

1.01 SECTION INCLUDES

A. Tack coat for asphaltic concrete paving.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No separate payment will be made for tack coat under this Section. Include payment in unit price for asphaltic pavements.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

A. ASTM D 244 - Standard Test Methods for Emulsified Asphalts.

1.04 SUBMITTALS

A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.

B. Submit product data for proposed tack coat.

C. Submit report of recent calibration of distributor.

PART 2 P R O D U C T S

2.01 CUTBACK ASPHALT

A. Provide moisture-free homogeneous material which will not foam when heated to 347 degrees F and which meets following requirements:

1. Asphalt material for tack coat: RC-250 and meet following:

PROPERTIES	RC – 250	
	MIN.	MAX.
Water, Percent	---	0.2
Flash Point, T.O.C.,°F	80	---
Kinematic Viscosity at 140°F, cst	250	400

2. Distillate: Expressed as percent by volume of total distillate to 680 F:

TEMPERATURE	RC – 250	
	MIN.	MAX.
to 437°F	40	75
to 500°F	65	90
to 600°F	85	---
Residue from 680°F Distillation, Volume, Percent	70	---

3. Tests on Distillation Residue:

PROPERTIES	RC – 250	
	MIN.	MAX.
Penetration at 77°F, 100g, 5 sec.	100	150
Ductility at 77°F, 5 cm/min. cms	100	---
Solubility in Trichloroethylene, %	99	---
Spot Test	All Negative	

2.02 EMULSION

A. Provide homogeneous material which shall show no separation of asphalt after mixing and shall meet the viscosity requirements at any time within 30 days after delivery.

1. Emulsion material for tack coat: SS-1 and meet following:

PROPERTIES	SS – 1	
	MIN.	MAX.
Furol Viscosity at 77°F, sec.	30	100
Residue by Distillation, %	60	---
Oil Portion of Distillate, %	---	2
Sieve Test, %	---	0.1
Miscibility (Standard Test)	Passing	Passing
Cement Mixing, %	---	2.0
Storage Stability, 1 Day, %	---	1
Test on Residue: Penetration at 77°F, 100g, 5 sec. Solubility in Trichloroethylene, % Ductility at 77°F, 5 cm/min., cms	 120 97.5 100	 160 --- ---

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify compacted base is ready to support imposed loads.

B. Verify lines and grades are correct.

3.02 PREPARATION

A. Thoroughly clean base course or concrete surface of loose material by brooming prior to application of tack coat.

3.03 APPLICATION

A. Apply tack coat uniformly by use of approved distributor at rate not to exceed 0.05 gallons per square yard of surface.

B. Paint contact surfaces of curbs and structures, and joints with thin uniform coat of tack coat.

C. Cutback Asphalt:

1. Do not place tack coat when air temperature is below 50 degrees F and falling. Materials may be placed when air temperature taken in shade and away from artificial heat is above 40 degrees F and rising.

2. Temperature of tack coat shall be between 125 degrees F and 180 degrees F when applied.

3. Do not heat tack coat above 200 degrees F at any time.

3.04 PROTECTION

A. Prevent traffic or placement of subsequent courses over freshly applied tack coat until authorized by Resident Project Representative.

END OF SECTION

Section 02751

CONCRETE PAVING

PART 1 G E N E R A L

1.01 SECTION INCLUDES

A. Portland cement concrete paving.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. Payment for concrete paving is on square yard basis. Separate pay items are used for each different required thickness of pavement.

2. Payment for concrete paving, high early strength, is on square yard basis.

3. Measurement for utility projects: Match actual pavement replaced but no greater than maximum pavement replacement limits shown on Drawings.

a. When removed pavement is greater than one-half of pavement lane width or within 18 inches of longitudinal joint, replace pavement for full lane width or to nearest longitudinal joint.

b. No payment will be made for work outside pavement limits or in areas removed or replaced for Contractor's convenience. Maximum payment limits are shown on Drawings. When extent of pavement replacement is increased to full lane width or to nearest longitudinal joint, maximum payment limits are increased to same extent.

4. Refer to Section 01270 - Measurement and Payment for unit price procedures.

5. Refer to Paragraph 3.15, Unit Price Adjustment.

B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for Work in this Section is included in total Stipulated Price.

1.03 REFERENCES

A. ASTM A 82 - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.

B. ASTM A 185 - Standard Specifications for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.

C. ASTM A 615 - Standard Specification for Deformed and Plain Billet - Steel Bars for Concrete Reinforcement.

D. ASTM C 31 - Standard Practice for Making and Curing Concrete Test Specimens in the Field.

E. ASTM C 33 - Standard Specifications for Concrete Aggregates.

F. ASTM C 39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

G. ASTM C 40 - Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

H. ASTM C 42 - Standard Test Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.

I. ASTM C 78 - Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third Point Loading).

J. ASTM C 94 - Standard Specification for Ready-Mixed Concrete.

K. ASTM C 131 - Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

L. ASTM C 136 - Standard Method for Sieve Analysis of Fine and Coarse Aggregates.

M. ASTM C 138 - Standard Test Method for Unit Weight, Yield, and Air Content (Gravimetric) of Concrete.

N. ASTM C 143 - Standard Test Method for Slump of Hydraulic Cement Concrete.

O. ASTM C 150 - Standard Specification for Portland Cement.

P. ASTM C 174 - Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores.

Q. ASTM C 231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.

R. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete.

S. ASTM C 494 - Standard Specification for Chemical Admixtures for Concrete.

T. ASTM C 618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for use as a Mineral Admixture in Portland Cement Concrete.

U. TxDOT Tex-203-F - Sand Equivalent Test.

V. TxDOT Tex-406-A - Material Finer than 75 Fm (No. 200) Sieve In Mineral Aggregates (Decantation Test for Cement Aggregates).

1.04 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittal Procedures.

B. Submit proposed mix design and test data for each type and strength of concrete in Work. Include proportions and actual flexural strength obtained from design mixes at required test ages.

C. Submit for approval manufacturer's description and characteristics for mixing equipment, and for traveling form paver, when proposed for use.

D. Submit manufacturer's certificates giving properties of reinforcing steel. Include certificate of compliance with ASTM A 82. Provide specimens for testing when required by Engineer.

1.05 HANDLING AND STORAGE

A. Do not mix different classes of aggregate without written permission of Engineer.

B. Class of aggregate being used may be changed before or during Work with written permission of Engineer. Comply new class with specifications.

C. Reject segregated aggregate. Before using aggregate whose particles are separated by size, mix them uniformly to grading requirements.

D. Reject aggregates mixed with dirt, weeds, or foreign matter.

E. Do not dump or store aggregate in road bed.

PART 2 P R O D U C T S

2.01 MATERIALS

A. Portland Cement:

1. Sample and test cement to verify compliance with Standards of ASTM C 150, Type I or Type III.

2. Bulk cement which meets referenced standards may be used when method of handling is approved by Engineer. When using bulk cement, provide satisfactory weighing devices.
3. Fly ash, which meets standards of ASTM C 618, may be used as mineral fill when method of handling is approved by Engineer.

B. Water: Conform to requirements for water in ASTM C 94.

C. Coarse Aggregate: Crushed stone, gravel, or combination thereof, which is clean, hard, durable, conforms to requirements of ASTM C 33, and has abrasion loss not more than 45 percent by weight when subjected to Los Angeles Abrasion Test (ASTM C 131).

1. Maximum percentage by weight of deleterious substances shall not exceed following values:

Item	Percent by Weight of Total Sample Maximum
Clay lumps and friable particles	3.0
Material finer than 75-µm (No. 200) sieve:	
Concrete subject to abrasion	3.0*
All Other concrete	5.0*
Coal and lignite:	
Where surface appearance of concrete	0.5
All other concrete	1.0

* In case of manufactured sand, when material finer than 75-µm (No. 200) sieve consists of dust of fracture, essentially free from clay or shale, these limits may be increased to 5 and 7 percent, respectively.

2. Conform coarse aggregate (size 12 inch to No. 4 sieve) to requirements of ASTM C 33. Use gradation within following limits when graded in accordance with ASTM C 136:

Sieve Designation (Square Openings)	Percentage by Weight
Retained on 1:" sieve	0
Retained on 12"sieve	0 to 5
Retained on :" sieve	30 to 65
Retained on d" sieve	70 to 90
Retained on No. 4 sieve	95 to 100
Loss by Decantation Test	

*Method Tex-406-A	1.0 maximum

* In case of aggregates made primarily from crushing of stone, when material finer than 200 sieve is dust of fracture essentially free from clay or shale as established by Part III of TxDOT Tex-406-A, percent may be increased to 1.5.

D. Fine Aggregate: Sand, manufactured sand, or combination thereof, composed of clean, hard, durable, uncoated grains, free from loams or other injurious foreign matter. Conform fine aggregate for concrete to requirements of ASTM C 33. Use gradation within following limits when graded in accordance with ASTM C 136:

Sieve Designation (Square Openings)	Percentage by Weight
Retained on 3/8" sieve	0
Retained on No. 4 sieve	0 to 5
Retained on No. 8 sieve	0 to 20
Retained on No. 16 sieve	15 to 50
Retained on No. 30 sieve	35 to 75
Retained on No. 50 sieve	65 to 90
Retained on No. 100 sieve	90 to 100
Retained on No. 200 sieve	97 to 100

1. When subjected to color test for organic impurities (ASTM C 40), fine aggregate shall not show color darker than standard color. Fine aggregate shall be subjected to Sand Equivalent Test (Tex-203-F). Sand equivalent value shall not be less than 80, unless higher value is shown on Drawings.

E. Mineral Filler: Class C fly ash of acceptable quality and meeting requirements of ASTM C 618 may be used as mineral admixture in concrete mixture. When fly ash mineral filler is used, store and inspect in accordance with ASTM C 618. Do not use fly ash in amounts to exceed 30 percent by absolute volume of cementitious material in mix design. Cement content may be reduced when strength requirements can be met. Note: When fly ash is used, term "cement" is defined as cement plus fly ash.

F. Air Entraining Agent: Furnish air-entraining agent conforming to requirements of ASTM C 260.

G. Water Reducer: Water reducing admixture conforming to requirements of ASTM C 494 may be used when required to improve workability of concrete. Amount and type of admixture subject to approval by Engineer.

H. Reinforcing Steel:

1. Provide new billet steel manufactured by open hearth process and conforming to ASTM A 615, Grade 60. Store steel to protect it from mechanical injury and rust. At time of placement, steel shall be free from dirt, scale, rust, paint, oil, or other injurious materials.

2. Cold bend reinforcing steel to shapes shown. Once steel has been bent, it may not be rebent.

3. Provide wire fabric conforming to ASTM A 82. Use fabric in which longitudinal and

transverse wires have been electrically welded at points of intersection. Welds shall have sufficient strength not to be broken during handling or placing. Conform welding and fabrication of fabric sheets to ASTM A 185.

I. Fibrous Reinforcing: Conform to requirements of Section 03240 - Fibrous Reinforcing.

2.02 EQUIPMENT

A. Conform Equipment to requirements of ASTM C 94.

2.03 MIXING

A. Flexural strength shall be as specified using test specimens prepared in accordance with ASTM C 31 and tested in accordance with ASTM C78 (using simple beam with third-point loading). Compressive strength shall be as specified using test specimens prepared in accordance with ASTM C 31 and tested in accordance with ASTM C 39. Determine and measure batch quantity of each ingredient, including water for batch designs and all concrete produced for Work. Mix shall conform to these specifications and other requirements indicated on Drawings.

B. Mix design to produce concrete, which will have flexural strength of 500 psi at 7 days and 600 psi at 28 days. Slump of concrete shall be at least 2 inches but no more than 4 inches, when tested in accordance with ASTM C 143.

1. Concrete pavement, including curb, curb and gutter, and saw-tooth curb, shall contain at least 52 sacks (94 pounds per sack) of cement per cubic yard, with not more than 6.5 gallons of water, net, per sack of cement (water-cement ratio maximum 0.57). Determine cement content in accordance with ASTM C 138. Addition of mineral filler may be used to improve workability or plasticity of concrete to limits specified.

2. Coarse dry aggregate shall not exceed 85 percent of loose volume of concrete.

3. Add air-entraining admixture to ensure uniform distribution of agent throughout batch. Base air content of freshly mixed air-entrained concrete upon trial mixes with materials to be used in Work, adjusted to produce concrete of required plasticity and workability. Percentage of air entrainment in mix shall be 42 percent plus or minus 12 percent. Determine air content by testing in accordance with ASTM C 231.

4. Use retardant when temperature exceeds 90 degrees F. Proportion as recommended by manufacturer. Use same brand as used for air-entraining agent. Add and batch material using same methods as used for air-entraining agent.

C. Use high early strength concrete pavement to limits shown on Drawings. Design to meet following:

1. Concrete Mix: Flexural strength greater than or equal to 500 psi at 72 hours.

2. Cement: Minimum of 7 sacks of cement per cubic yard of concrete.

3. Water-Cement Ratio: Less than or equal to 5 gallons per sack. Changes in water-cement ratio and mix design including increase in cement factor when necessary, will be made when 72-hour flexural strength does not meet minimum value of 500 psi.

4. Other requirements for proportioning, mixing, execution, testing, etc., shall be in accordance with this Section 02751 - Concrete Paving.

PART 3 E X E C U T I O N

3.01 EXAMINATION

A. Verify compacted base is ready to support imposed loads and meets compaction requirements.

B. Verify lines and grades are correct.

3.02 PREPARATION

A. Properly prepare, shape and compact each section of sub grade before placing forms, reinforcing steel or concrete. After forms have been set to proper grade and alignment, use sub grade planer to shape sub grade to its final cross section. Check contour of sub grade with template.

B. Remove sub grade that will not support loaded form. Replace and compact sub grade to required density.

3.03 EQUIPMENT

A. Alternate equipment and methods, other than those required by this Section, may be used provided equal or better results will be obtained. Maintain equipment for preparing sub grade and for finishing and compacting concrete in good working order.

B. Sub grade Planer and Template:

1. Use sub grade planer with adjustable cutting blades to trim sub grade to exact section shown on Drawings. Select planer mounted on visible rollers, which ride on forms. Planer frame must have sufficient weight so that it will remain on form, and have strength and rigidity that, under tests made by changing support from wheels to center, planer will not develop deflection of more than c inch. Tractors used to pull planer shall not produce ruts or indentations in sub grade. When slip form method of paving is used, operate sub grade planer on prepared track grade or have it controlled by electronic sensor system operated from string line to establish horizontal alignment and elevation of subbase.

2. Provide template for checking contour of sub grade. Template shall be long enough to rest upon side forms and have strength and rigidity that, when supported at center, maximum deflection shall not exceed c inch. Fit template with accurately adjustable rods projecting downward at 1-foot intervals. Adjust these rods to gauge cross sections of slab bottom when template is resting on side forms.

C. Machine Finisher: Provide power-driven, transverse finishing machine designed and operated to strike off and consolidate concrete. Machine shall have two screeds accurately adjusted to crown of pavement and with frame equipped to ride on forms. Use finishing machine with rubber tires when it operates on concrete pavement.

D. Hand Finishing:

1. Provide mechanical strike and tamping template 2 feet longer than width of pavement to be finished. Shape template to pavement section.

2. Provide two bridges to ride on forms and span pavement for finishing expansion and dummy joints. Provide floats and necessary edging and finishing tools.

E. Burlap Drag for Finishing Slab: Furnish four plies of 10-ounce burlap material fastened to bridge to form continuous strip of burlap full width of pavement. Maintain contact 3-foot width of burlap material with pavement surface. Keep burlap drags clean and free of encrusted mortar.

F. Vibrators: Furnish mechanically operated, synchronized vibrators mounted on tamping bar which

rides on forms and hand-manipulated mechanical vibrators. Furnish vibrators with frequency of vibration to provide maximum consolidation of concrete without segregation.

G. Traveling Form Paver: Approved traveling form paver may be used in lieu of construction methods employing forms, consolidating, finishing and floating equipment. Meet requirements of this specification for sub grade, pavement tolerances, pavement depth, alignments, consolidation, finishing and workmanship. When traveling form paver does not provide concrete paving that meets compaction, finish, and tolerance requirements of this Specification, immediately discontinue its use and use conventional methods.

1. Equip traveling paver with longitudinal transangular finishing float adjustable to crown and grade. Use float long enough to extend across pavement to side forms or edge of slab.

2. Ensure that continuous deposit of concrete can be made at paver to minimize starting and stopping. Use conventional means of paving locations inaccessible to traveling paver, or having horizontal or vertical curvature that traveling paver cannot negotiate.

3. Where Drawings require tie bars for adjacent paving, securely tie and support bars to prevent displacement. Tie bars may be installed with approved mechanical bar inserter mounted on traveling-form paver. Replace pavement in which tie bars assume final position other than that shown on Drawings.

3.04 FORMS

A. Side Forms: Use metal forms of approved shape and section. Preferred depth of form equal to required edge thickness of pavement. Forms with depths greater or less than required edge thickness of pavement will be permitted, provided difference between form depth and edge thickness when not greater than 1 inch, and further provided that forms of depth less than pavement edge are brought to required edge thickness by securely attaching wood or metal strips to bottom of form, or by grouting under form. Bottom flange of form shall be same size as thickness of pavement. Aluminum forms are not allowed. Forms shall be approved by Engineer. Length of form sections shall be not less than 10 feet and each section shall provide for staking in position with not less than 3 pins. Flexible or curved forms of wood or metal of proper radius shall be used for curves of 200-foot radius or less. Forms shall have ample strength and shall be provided with adequate devices for secure setting so that when in-place they will withstand, without visible springing or settlement, impact and vibration of finishing machine. In no case shall base width be less than 8 inches for form 8 inches or more in height. Forms shall be free from warp, bends or kinks and shall be sufficiently true to provide straight edge on concrete. Top of each form section, when tested with straight edge, shall conform to requirements specified for surface of completed pavement. Provide sufficient forms for satisfactory placement of concrete. For short radius curves, forms less than 10 feet in length or curved forms may be used. For curb returns at street intersections and driveways, wood forms of good grade and quality may be used.

B. Form Setting:

1. Rest forms directly on sub grade. Do not shim with pebbles or dirt. Accurately set forms to required grade and alignment and, during entire operation of placing, compacting and finishing of concrete, do not deviate from this grade and alignment more than c inch in 10 feet of length. Do not remove forms for at least 8 hours after completion of finishing operations. Provide supply of forms that will be adequate for orderly and continuous placing of concrete. Set forms and check grade for at least 300 feet ahead of mixer or as approved by Engineer.

2. Adjacent slabs may be used instead of forms, provided that concrete is well protected from possible damage by finishing equipment. Do not use adjacent slabs for forms until

concrete has aged at least 7 days.

3.05 REINFORCING STEEL AND JOINT ASSEMBLIES

A. Place reinforcing steel and joint assemblies and position securely as indicated on Drawings. Wire reinforcing bars securely together at intersections and splices. Bars and coatings shall be free of rust, dirt or other foreign matter when concrete is placed. Secure reinforcing steel to chairs.

B. Position pavement joint assemblies at required locations and elevations, and rigidly secure in position. Install dowel bars in joint assemblies, each parallel to pavement surface and to centerline of pavement, as shown.

C. Cut header boards, joint filler, and other material used for forming joints to receive each dowel bar.

D. Secure in required position to prevent displacement during placing and finishing of concrete.

E. Drill dowels into existing pavement, secure with epoxy, and provide paving headers as required to provide rigid pavement sections.

F. Use sufficient number of chairs for steel reinforcement bars to maintain position of bars within allowable tolerances. Place reinforcement as shown on Drawings. In plane of steel parallel to nearest surface of concrete, bars shall not vary from plan placement by more than 1/12 of spacing between bars. In plane of steel perpendicular to nearest surface of concrete, bars shall not vary from plan placement by more than 3 inch.

3.06 FIBROUS REINFORCING

A. Do not use fibrous reinforcing to replace structural, load-bearing, or moment-reinforcing steel.

B. Mix and place in accordance with requirements of Section 03240.

3.07 PLACEMENT

A. Place concrete when air temperature taken in shade and away from artificial heat is above 35 degrees F and rising. Do not place concrete when temperature is below 40 degrees F and falling.

B. Place concrete within 90 minutes after initial water had been added. Remove and dispose of concrete not placed within this period.

C. Concrete slump during placement shall be 1 to 4 inches, except when using traveling-form paver, slump shall be maximum of 2 inches.

D. Deposit concrete continuously in successive batches. Distribute concrete in manner that will require as little rehandling as possible. Where hand spreading is necessary, distribute concrete with shovels or by other approved methods. Use only concrete rakes in handling concrete. At placement interruption of more than 30 minutes, place transverse construction joint at stopping point. Remove and replace sections less than 10 feet long.

E. Take special care in placing and spading concrete against forms and at longitudinal and transverse joints to prevent honeycombing. Voids in edge of finished pavement will be cause for rejection.

3.08 COMPACTION

A. Consolidate concrete using mechanical vibrators as specified herein. Extend vibratory unit across pavement, not quite touching side forms. Space individual vibrators at close enough intervals to vibrate and consolidate entire width of pavement uniformly. Mount mechanical vibrators to avoid contact with forms, reinforcement, transverse or longitudinal joints.

B. Furnish enough hand-manipulated mechanical vibrators for proper consolidation of concrete along forms, at joints and in areas not covered by mechanically controlled vibrators.

3.09 FINISHING

A. Finish concrete pavement with power-driven transverse finishing machines or by hand finishing methods.

1. Use transverse finishing machine to make at least two trips over each area. Make last trip continuous run of not less than 40 feet. After transverse screeding, use hand-operated longitudinal float to test and level surface to required grade.

2. Hand finish with mechanical strike and tamping template in same width as pavement to be finished. Shape template to pavement section shown on Drawings. Move strike template forward in direction of placement, maintaining slight excess of material in front of cutting edge. Make minimum of two trips over each area. Screed pavement surface to required section. Work screed with combined transverse and longitudinal motion in direction work is progressing. Maintain screed in contact with forms. Use longitudinal float to level surface.

B. On narrow strips and transitions, finish concrete pavement by hand. Thoroughly work concrete around reinforcement and embedded fixtures. Strike off concrete with strike-off screed. Move strike-off screed forward with combined transverse and longitudinal motion in direction work is progressing, maintaining screed in contact with forms, and maintaining slight excess of materials in front of cutting edge. Tamp concrete with tamping template. Use longitudinal float to level surface.

C. After completion of straightedge operation, make first pass of burlap drag as soon as construction operations permit and before water sheen has disappeared from surface. Follow with as many passes as required to produce desired texture depth. Permit no unnecessary delays between passes. Keep drag wet, clean and free from encrusted mortar during use.

3.10 JOINTS AND JOINT SEALING

A. Conform to requirements of Section 02752 - Concrete Pavement Joints.

3.11 CONCRETE CURING

A. Conform to requirements of Section 02753 - Concrete Pavement Curing.

3.12 TOLERANCES

A. Test entire surface before initial set and correct irregularities or undulations. Bring surface within requirements of following test and then finish. Place 10-foot straightedge parallel to center of roadway to bridge depressions and touch high spots. Do not permit ordinates measured from face of straight edge to surface of pavement to exceed 1/16 inch per foot from nearest point of contact. Maximum ordinate with 10-foot straightedge shall not exceed c inch. Grind spots in excess of required tolerances to meet surface test requirements. Restore texture by grooving concrete to meet surface finishing specifications.

3.13 FIELD QUALITY CONTROL

A. Perform testing under provisions of Section 01454 - Testing Laboratory Services.

B. Compressive Strength Test Specimens: Make four test specimens for compressive strength test in accordance with ASTM C 31 for each 150 cubic yards or less of pavement that is placed in one day. Test two specimens at 7 days. Test remaining two specimens at 28 days. Test specimens in accordance with ASTM C 39. Minimum compressive strength shall be 3000 pounds per square inch at 7 days and 3500 pounds per square inch at 28 days.

C. When compressive test indicates failure, make yield test in accordance with ASTM C 138 for cement content per cubic yard of concrete. When cement content is found to be less than that specified per cubic yard, increase batch weights until amount of cement per cubic yard of concrete conforms to requirements.

D. Minimum of one 4-inch core will be taken at random locations per 375 feet per 12 feet lane or 500 square yards of pavement to measure in-place depth. Measure depth in accordance with ASTM C 174. Each core may be tested for 28-day compressive strength according to methods of ASTM C 42. 28-day compressive strength of each core tested shall be minimum of 3000 pounds per square inch.

E. Request, at option, three additional cores in vicinity of cores indicating nonconforming in-place depths at no cost to City. In-place depth at these locations shall be average depth of four cores.

F. Fill cores and density test sections with new concrete paving or non-shrink grout.

3.14 NONCONFORMING PAVEMENT

A. Remove and replace areas of pavement found deficient in thickness by more than 10 percent, or that fail compressive strength tests, with concrete of thickness shown on Drawings.

B. When measurement of any core is less than specified thickness by more than 10 percent, actual thickness of pavement in this area will be determined by taking additional cores at 10-foot intervals parallel to centerline in each direction from deficient core until, in each direction, core is taken which is not deficient by more than 10 percent. Exploratory cores for deficient thickness will not be used in averages for adjusted unit price. Exploratory cores are to be used only to determine length of pavement in unit that is to be removed and replaced. Replace nonconforming pavement sections at no additional cost to City.

3.15 UNIT PRICE ADJUSTMENT

A. Unit price adjustments shall be made for in-place depth determined by cores as follows:

1. Adjusted Unit Price shall be ratio of average thickness as determined by cores to thickness bid upon, times unit price.

2. Apply adjustment to lower limit of 95 percent and upper limit of 100 percent of unit price.

3. Average depth below 95 percent but greater than 90 percent may be accepted by Engineer at adjusted Unit Price of :

Unit Price Bid - [2 x (1-ratio) x Unit Price Bid]

4. Average depth below 90 percent will be rejected by Engineer.

3.16 PAVEMENT MARKINGS

A. Restore pavement markings to match those existing in accordance with standard specifications and details and Engineer's requirements.

3.17 PROTECTION

A. Barricade pavement section to prevent use until concrete has attained minimum design strength. Cure barricade pavement section for minimum 72 hours before use. Do not open pavement to traffic until concrete is at least 10 days old. Pavement may be open to traffic earlier provided Contractor pays for testing and additional beam once 7 day specified flexural strength is obtained. Pavement may be opened when high early strength concrete is used meeting specified 72-hour strength.

B. High early strength concrete may be used to provide access at driveways, street intersections, esplanades and other locations approved by Engineer.

C. On those sections of pavement to be opened to traffic, seal joints, clean pavement, and place earth against pavement edges before permitting use by traffic. Opening of pavement to traffic shall not relieve responsibility for Work.

D. Maintain concrete paving in good condition until completion of Work.

E. Repair defects by replacing concrete to full depth.

END OF SECTION

Section 02752

CONCRETE PAVEMENT JOINTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Joints for concrete paving; concrete sidewalks; concrete driveways, curbs, and curb and gutters.

B. Saw-cutting existing concrete or asphalt pavements for new joints.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. Payment for saw-cutting existing concrete or asphalt pavement for new joints is on linear foot basis. Saw-cutting existing standard concrete curb will be measured as 1-1/2 linear feet and existing standard concrete curb and gutter will be measured as 3 linear feet.

2. No separate payment will be made for expansion joints, formed or sawed street pavement contraction joints and longitudinal weakened plane joints. Include payment in unit price for Concrete Paving.

3. No separate payment will be made for joints for Curb, Curb and Gutter, Saw-tooth Curb, Concrete Sidewalks, and Concrete Driveways. Include payment in unit price for Curb and Gutter, Concrete Sidewalks, and Concrete Driveways.

4. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

A. ASTM A 615 - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.

B. ASTM D 994 - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).

C. ASTM D 1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).

D. ASTM D 3405 - Standard Specification for Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements.

1.04 SUBMITTALS

A. Submit product data and samples in accordance with requirements of Section 01330 - Submittal Procedures.

B. Submit product data for joint sealing compound and proposed sealing equipment for approval.

C. Submit samples of dowel cup, metal supports, and deformed metal strip for approval.

PART 2 P R O D U C T S

2.01 MATERIALS

A. Board Expansion Joint Material: Filler board of selected stock. Use wood of density and type as follows:

1. Clear, all-heart cypress weighing no more than 40 pounds per cubic foot, after being oven dried to constant weight.

2. Clear, all-heart redwood weighing no more than 30 pounds per cubic foot, after being oven dried to constant weight.

B. Preformed Expansion Joint Material: Bituminous fiber and bituminous mastic composition material conforming to ASTM D 994 and ASTM D 1751.

C. Joint Sealing Compound: Hot-poured rubber-asphalt compound conforming to ASTM D 3405.

D. Load Transmission Devices:

1. Smooth, steel dowel bars conforming to ASTM A 615, Grade 60. When indicated on Drawings, encase one end of dowel bar in approved cap having inside diameter 1/16 inch greater than diameter of dowel bar.

2. Deformed steel tie bars conforming to ASTM A 615, Grade 60.

E. Metal Supports for Reinforcing Steel and Joint Assembly: Employ metal supports of approved shape and size that will secure reinforcing steel and joint assembly in correct position during placing and finishing of concrete.

PART 3 E X E C U T I O N

3.01 PLACEMENT

A. When new work is adjacent to existing concrete, place joints at same location as existing joints in adjacent pavement.

B. If the limit of removal of existing concrete or asphaltic pavement does not fall on existing joint, saw cut existing pavement minimum of 2 inches deep to provide straight, smooth joint surface without chipping, spalling or cracks.

3.02 CONSTRUCTION JOINTS

A. Place transverse construction joint wherever concrete placement must be stopped for more than 30 minutes. Place longitudinal construction joints at interior edges of pavement lanes using No. 6 deformed tie bars, 30 inches long and spaced 18 inches on centers.

3.03 EXPANSION JOINTS

A. Place 3/4-inch expansion joints at radius points of curb returns for cross street intersections, or as located in adjacent pavement but no further than 80 feet apart. Use no boards shorter than 6 feet. When pavement is 24 feet or narrower, use not more than 2 lengths of board. Secure pieces to form straight joint. Shape board filler accurately to cross section of concrete slab. Use load transmission

devices of type and size shown on Drawings unless otherwise specified or shown as "No Load Transfer Device". Seal with joint sealing compound.

3.04 CONTRACTION JOINTS

A. Place contraction joints at same locations as in adjacent pavement or at spaces indicated on Drawings. Place smoothed, painted and oiled dowels accurately and normal to joint. Seal groove with joint sealing compound.

3.05 LONGITUDINAL WEAKENED PLANE JOINTS

A. Place longitudinal weakened plane joints at spaces indicated on Drawings. Seal groove with joint sealing compound.

3.06 SAWED JOINTS

A. Use sawed joints as an alternate to contraction and weakened plane joints. Circular cutter shall be capable of cutting straight line groove minimum of 1/2 inch wide. Depth shall be one quarter of pavement thickness plus 1/2 inch. Commence sawing as soon as concrete has hardened sufficiently to permit cutting without chipping, spalling or tearing and prior to initiation of cracks. Once sawing has commenced, it shall be continued until completed. Make saw cut with one pass. Complete sawing within 24 hours of concrete placement. Saw joints at required spacing consecutively in sequence of concrete placement.

B. Concrete Saw: Provide sawing equipment adequate in power to complete sawing to required dimensions and within required time. Provide at least one standby saw in good working order. Maintain an ample supply of saw blades at work site at all times during sawing operations. Sawing equipment shall be on job at all times during concrete placement.

3.07 JOINTS FOR CURB, CURB AND GUTTER

A. Place 3/4-inch preformed expansion joints through curb and gutters at locations of expansion and contraction joints in pavement; at end of radius returns at street intersections and driveways; and at curb inlets. Maximum spacing shall be 120-foot centers.

3.08 JOINTS FOR CONCRETE SIDEWALKS

A. Provide 3/4-inch expansion joints conforming to ASTM A 1751 along and across sidewalk at back of curbs, at intersections with driveways, steps, and walls; and across walk at intervals not to exceed 36 feet. Provide expansion joint material conforming to ASTM D 994 for small radius curves and around fire hydrants and utility poles. Extend the expansion joint material full depth of the slab.

3.09 JOINTS FOR CONCRETE DRIVEWAYS

A. Provide 3/4-inch expansion joints conforming to ASTM D 1751 across driveway in line with street face of sidewalks, at existing concrete driveways, and along intersections with sidewalks and other structures. Extend expansion joint material full depth of slab.

3.10 JOINT SEALING

A. Seal joints only when surface and joints are dry, ambient temperature is above 50 degrees F and less than 85 degrees F, and weather is not foggy or rainy.

B. Joint sealing equipment shall be in like new working condition throughout the joint sealing operation, and be approved by Resident Project Representative. Use concrete grooving machine or power-

operated wire brush and other equipment such as plow, brooms, brushes, blowers or hydro or abrasive cleaning as required to produce satisfactory joints.

C. Clean joints of loose scale, dirt, dust and curing compound. The term joint includes wide joint spaces, expansion joints, dummy groove joints or cracks, either preformed or natural. Remove loose material from concrete surfaces adjacent to joints.

D. Fill joints neatly with joint sealer to depth shown. Pour sufficient joint sealer into joints so that, upon completion, surface of sealer within joint will be 1/4 inch above level of adjacent surface or at elevation as directed.

3.11 PROTECTION

A. Maintain joints in good condition until completion of Work.

B. Replace damaged joints material with new material as required by this Section.

END OF SECTION

Section 02753

CONCRETE PAVEMENT CURING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Curing of Portland cement concrete paving.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No separate payment will be made for concrete curing under this Section. Include payment in unit price for Concrete Paving, Concrete Sidewalks, Curbs, and Curb and Gutters.

2. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

A. ASTM C 171 - Standard Specifications for Sheet Materials for Curing Concrete.

B. ASTM C 309 - Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete.

1.04 SUBMITTALS

A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.

B. Submit manufacturer's product data for cover materials and liquid membrane-forming compounds.

PART 2 PRODUCTS

2.01 COVER MATERIALS FOR CURING

A. Curing materials shall conform to one of the following:

1. Polyethylene Film: Opaque pigmented white film conforming to requirements of ASTM C 171.

2. Waterproofed Paper: Paper conforming to requirements of ASTM C 171.

3. Cotton Mats: Single layer of cotton filler completely enclosed in cover of cotton cloth. Mats shall contain not less than 3/4 of a pound of uniformly distributed cotton filler per square yard of mat. Cotton cloth used for covering materials shall weigh not less than 6 ounces per square yard. Mats shall be stitched so that mat will contact surface of pavement at all points when saturated with water.

2.02 LIQUID MEMBRANE-FORMING COMPOUNDS

A. Liquid membrane-forming compounds shall conform to ASTM C 309. Membrane shall restrict loss of water to not more than 0.55 kg/m^2 of surface in 72 hours.

PART 3 EXECUTION

3.01 CURING REQUIREMENT

A. Concrete pavement shall be cured by protecting it against loss of moisture for period of not less than 72 hours immediately upon completion of finishing operations. Do not use membrane curing for concrete pavement to be overlaid by asphaltic concrete.

B. Failure to provide sufficient cover material shall be cause for immediate suspension of concreting operations.

3.02 POLYETHYLENE FILM CURING

A. Immediately after finishing surface, and after concrete has taken its initial set, apply water in the form of a fine spray. Cover surface with polyethylene film so film will remain in direct contact with surface during specified curing period.

B. Cover entire surface and both edges of pavement slab. Joints in film sheets shall overlap minimum of 12 inches. Immediately repair tears or holes occurring during curing period by placing acceptable moisture-proof patches or by replacing.

3.03 WATERPROOFED PAPER CURING

A. Immediately after finishing surface, and after concrete has taken its initial set, apply water in form of fine spray. Cover surface with waterproofed paper so paper will remain in direct contact with surface during specified curing period.

B. Prepare waterproofed paper to form blankets of sufficient width to cover entire surface and both edges of pavement slab, and not be more than 60 feet in length. Joints in blankets caused by joining paper sheets shall lap not less than 5 inches and shall be securely sealed with asphalt cement having melting point of approximately 180 degrees F. Place blankets to secure an overlap of at least 12 inches. Tears or holes appearing in paper during curing period shall be immediately repaired by cementing patches over defects.

3.04 COTTON MAT CURING

A. Immediately after finishing surface, and after concrete has taken its initial set, completely cover surface with cotton mats, thoroughly saturated before application, in such manner that they will contact surface of pavement equally at all points.

B. Mats shall remain on pavement for specified curing period. Keep mats saturated so that, when lightly compressed, water will drip freely from them. Keep banked earth or cotton mat covering edges saturated.

3.05 LIQUID MEMBRANE-FORMING COMPOUNDS

A. Immediately after finishing surface, and after concrete has taken its initial set, apply liquid membrane-forming compound in accordance with manufacturer's instructions.

END OF SECTION

Section 02756

COLD MILLING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Section Includes: Process of removing all or portions of existing asphalt pavement to remove distressed pavement, restore cross-section, improve profile, restore clearances, or improve drainage.

B. Related Sections: Refer to following sections for related work:
1. Section 02221 "Removing Existing Pavements and Structures."
2. Section 02741 "Asphalt Concrete Pavement."
3. Section 02740 "Asphalt Overlay and Base Repair"

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. Payment for milling is on square yard basis. Separate pay items re used for each different required thickness of pavement.

B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 DEFINITIONS

A. Excessive Grooving: Variation in milled surface in excess of 1 inch (25 mm) from high point to low point across width of surface milled by each pass of milling machine

PART 2 PRODUCTS

2.01 EQUIPMENT

A. Milling Machine: Specially designed and built for milling of bituminous pavements without addition of heat, and ability to plane Portland cement concrete patches in bituminous pavements.

a. Cutting Drum: Minimum 60 inches (1.5 m) wide, and equipped with carbide-tipped butting teeth placed in variable lacing pattern to produce desired finish.

b. Capable of being operated at speeds from 0 to 40 feet (0 to 12 m) per minute, self-propelled, and capable of spraying water at cutting drum to minimize dust while maintaining enclosed cutting area.

c. Capable of removing material next to gutter of pavement being reconditioned, and designed to enable operator at all times to observe milling operation without leaving controls.

d. Adjustable for slope and depth, capable of accurately controlling profile grades and cross slopes within tolerance of plus or minus one inch (25 mm). Equipment shall control profile grades by using either independent grade control or minimum 40 foot (12 m) external reference, and shall also have cross slope elevation controls.

e. Provide smaller machine if required to trim areas inaccessible to larger machine at manholes, gate valve covers, curb returns, and intersections.
   i. Cutting Drum: Minimum 12-inch (305 mm) width, mounted on chassis, and ability to be positioned without interrupting traffic or pedestrian flow.
   ii. Additional equipment may be necessary to remove pavement if areas listed above are inaccessible with 12-inch (305 mm) cutting drum.

f. Milling equipment shall be equipped with means to effectively limit amount of dust escaping from milling operation.

PART 3 EXECUTION

3.01 PREPARATION

A. Traffic Signal Loop Detectors: Before cold milling pavement within 300 feet (90 m) of traffic signal, notify Sandia Delegated Representative (SDR) at least 3 working days prior to commencing Work within area.

a. Upon notification, SDR will coordinate marking location of existing loop detectors.

b. Do not cold mill within 12 inches (305 mm) of loop detector conductors.

c. Damage to existing loop caused by milling operation will require replacement of loops in their entirety at Contractor's expense.

3.02 PROCEDURE

A. General: Cold mill existing pavement surface to depth, width, and grade as indicated in Contract documents, or as directed by SDR. Surface of pavement after milling shall be uniformly rough grooved or ridged as directed by SDR.

B. Cold Milling of Pavement surfaces: Thickness of pavement removal shall be described as nominal thickness, with ranges as follows:
   a. Nominal 3/4-inch (19.1 mm) Cut: 3/4 inch (19.1 mm) average of cuts ranging from 0 to 1-1/2 inches (0 to 38.1 mm).

   b. Nominal 1-inch (25 mm) Cut: 1 inch (25 mm) average of cuts ranging from 0 to 2 inches (0 to 51 mm).

   c. Nominal 1-1/2-inch (38.1 mm) Cut: 1-1/2 inch (38.1 mm) average of cuts ranging from 0 to 3 inches (0 to 76 mm)

   d. Nominal 2-inch (51 mm) Cut: 2 inch (51 mm) average of cuts ranging from 0 to 4 inches (0 to 102 mm).

C. Loosened Material: During milling operation, sweep street with mechanical equipment and remove loosened material from site until completion of removal work.

   a. Follow no closer than 50 feet (15 m) behind milling machine, unless otherwise directed by SDR, to remove millings or sweep loosened material.

D. Pavement Transitions: In areas where cold milling is done, but will not be paved within 1 week, overlay with 2-foot (610-mm) minimum width of asphalt concrete pavement transition adjacent to gutters, cross gutters, and structures, and at existing transverse joint lines.

E. Pavement transition may be omitted when vertical offset between milled surface and adjacent riding asphalt surface is less than 3/8 inch (9.5 mm).

F. Tolerances: When 10 foot (3 m) straight edge is laid on finished surface parallel to centerline of roadway, surface shall not vary from edge of straightedge more than 3/8 inch (9.5 mm), except at intersections or any changes of grade.

a. Adjust to established depth in increments of 1 inch (25 mm) or less.
b. Excessive grooving by cold milling will not be permitted.

3.03 CLEANING

A. Keep premises free from accumulations of waste materials, rubbish, and other debris resulting from work. Remove cold milled material from pavement surface, and transport to salvage or disposal areas provided by SDR.

a. Remove and transport demolished material to comply with requirements of Section 02221 "Removing Existing Pavements and Structures".

b. Remove tools, construction equipment and machinery, and surplus materials.

c. Restore to their original condition portions of site not designated for alteration by Contract documents, unless completion of Work is directly affected. of work.

END OF SECTION

Division 3
Concrete

Section 03211

REINFORCING STEEL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Structural concrete reinforcement and grouting of reinforcement dowel bars into hardened concrete.

1.02 UNIT PRICES

A. No separate payment will be made for reinforcing steel or grouting that is part of the Work as bid. Include payment in unit price for structural concrete.

B. Measurement for reinforcing steel installed as extra work is on a per-pound basis.

C. Refer to Section 01270 - Measurement and Payment for unit price procedures.

1.03 REFERENCES

A. ACI 315 - Details and Detailing of Concrete Reinforcement.

B. ACI 318 - Building Code Requirements for Reinforced Concrete.

C. ASTM A 36 - Standard Specification for Structural Steel.

D. ASTM A 82 - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.

E. ASTM A 185 - Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.

F. ASTM A 497 - Standard Specification for Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.

G. ASTM A 615 - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.

H. ASTM A 675 - Standard Specification for Steel Bars, Carbon, Hot-Wrought, Special Quality, Mechanical Properties.

I. ASTM A 775/A 775M - Standard Specification for Epoxy-Coated Reinforcing Steel Bars.

J. ASTM C 881 - Specification for Epoxy-Resin-Base Bonding Systems for Concrete.

K. AWS D 1.4 - Structural Welding Code - Reinforcing Steel.

L. WRI - Manual of Standard Practice for Welded Wire Fabric.

M. CRSI MSP-1 - Manual of Standard Practice.

1.04 SUBMITTALS

A. Conform to Section 01330 – Submittal Procedures.
B. Shop Drawings:

1. Submit shop drawings detailing reinforcement fabrication, bar placement location, splices, spacing, bar designation, bar type, length, size, bending, number of bars, bar support type and other pertinent information, including dimensions. Provide sufficient detail for placement of reinforcement without use of Contract Drawings. Information shall correspond directly to data listed on bill of materials.

2. Use of reproductions of Contract Drawings by Contractor, Subcontractor, erector, fabricator or material supplier in preparation of shop drawings (or in lieu of preparation of shop drawings) signifies acceptance by that party of information shown thereon as correct, and acceptance of obligation to pay for any job expense, real or implied, arising due to errors that may occur thereon. Remove references to Design Engineer, including seals, when reproductions of Contract Drawings are used as shop drawings.

3. Detail shop drawings in accordance with ACI 315, Figure 6.

4. Submit shop drawings showing location of proposed additional construction joints as required under Section 03351 - Joints in Concrete Structures, and obtain approval of Engineer, prior to submitting reinforcing steel shop drawings.

C. Bill of Materials: Submit with shop drawings.

D. Product Data:

1. Mechanical Bar Splices: Submit manufacturer's technical literature, including specifications and installation instructions.

2. Epoxy grout proposed for anchoring reinforcing dowels to hardened concrete: Submit manufacturer's technical literature including recommended installation procedures.

E. Certificates:

1. Submit steel manufacturer's certificates of mill tests giving properties of steel proposed for use. List manufacturer's test number, heat number, chemical analysis, yield point, tensile strength and percentage of elongation. Identify proposed location of steel in work.

2. Foreign-manufactured reinforcing bars shall be tested for conformance to ASTM requirements by a certified independent testing laboratory located in United States. Certification from any other source is not acceptable. Submit test reports for review. Do not begin fabrication of reinforcement until material has been approved.

1.05 HANDLING AND STORAGE

A. Store steel reinforcement above ground on platforms, skids or other supports. Protect reinforcing from mechanical injury, surface deterioration and formation of excessive, loose or flaky rust caused by exposure to weather. Protect epoxy-coated reinforcing from formation of any amount of rust.

1.06 QUALITY ASSURANCE

A. Notify Resident Project Representative at least 48 hours before concrete placement so that reinforcement may be inspected, and errors corrected, without delaying Work.

PART 2 P R O D U C T S

2.01 MATERIAL

A. Reinforcing Bars: Deformed bars conforming to ASTM A 615, grade as indicated on Drawings, except column spirals and those shown on Drawings to be smooth bars. Where grade is not shown on Drawings, use Grade 60.

B. Smooth Bars: Where indicated on Drawings, use smooth bars conforming to ASTM A 36; ASTM A 615, Grade 60; or ASTM A 675, Grade 70.

C. Column Spirals: Bars conforming to ASTM A 615, Grade 60, or wire conforming to ASTM A 82.

D. Epoxy-Coated Deformed Bars, Column Spirals and Smooth Bars: Conform to ASTM A 775/A 775M.

E. Welded Wire Fabric:

1. Welded Smooth Wire Fabric: Conform to ASTM A 185.

2. Welded Deformed Wire Fabric: Conform to ASTM A 497.

3. Provide wire size, type and spacing as shown. Where type is not shown on Drawings, use welded smooth wire fabric.

4. Furnish welded wire fabric in flat sheets only.

F. Tie Wire: 16-1/2 gage or heavier annealed steel wire. Use plastic-coated tie wire with epoxy-coated reinforcing steel.

G. Bar Supports: Provide chairs, riser bars, ties and other accessories made of plastic or metal, except as otherwise specified. Use bar supports and accessories of sizes required to provide required concrete cover. Where concrete surfaces are exposed to weather, water or wastewater, provide plastic accessories only; do not use galvanized or plastic-tipped metal in such locations. Provide metal bar supports and accessories rated Class 1 or 2 conforming to CRSI MSP-1 Manual of Standard Practice. Use epoxy-coated bar supports with epoxy-coated reinforcing bars.

H. Slabs on Grade: Provide chairs with sheet metal bases or provide precast concrete bar supports 3 inches wide, 6 inches long, and thick enough to allow required cover. Embed tie wires in 3-inch by 6-inch side.

I. Mechanical Bar Splices:

1. Conform to ACI 318; use where indicated on Drawings.

   a. Compression splices shall develop ultimate stress of reinforcing bar.

   b. Tension splices shall develop 125 percent of minimum yield point stress of reinforcing bar.

2. Regardless of chemical composition of steel, any heat effect shall not adversely affect performance of reinforcing bar.

J. Welded Splices:

1. Provide welded splices where shown and where approved by the Engineer. Welded splices of reinforcing steel shall develop a tensile strength exceeding 125 percent of the yield strength of the reinforcing bars connected.

2. Provide materials for welded splices conforming to AWS D1.4.

K. Epoxy Grout: High-strength rigid epoxy adhesive, conforming to ASTM C 881, Type IV, manufactured for purpose of anchoring dowels into hardened concrete and the moisture condition, application temperature and orientation of the hole to be filled. Unless otherwise shown, depth of embedment shall be as required to develop the full tensile strength (125 percent of yield strength) of dowel, but not less than 12 diameters.

2.02 FABRICATION

A. Bending: Fabricate bars to shapes indicated on Drawings by cold bending. Bends shall conform to minimum bend diameters specified in ACI 318. Do not straighten or rebend bars. Fabricate epoxy-coated reinforcing steel to required shapes in a manner that will not damage epoxy coating. Repair any damaged epoxy coating with patching material conforming to Item 4.4 of ASTM A 775/A 775M.

B. Splices:

1. Locate splices as indicated on Drawings. Do not locate splices at other locations without approval of Engineer. Use minimum number of splices located at points of minimum stress. Stagger splices in adjacent bars.

2. Length of lap splices: As shown on Drawings.

3. Prepare ends of bars at mechanical splices in accordance with splice manufacturer's requirements.

C. Construction Joints: Unless otherwise shown, continue reinforcing through construction joints.

D. Bar Fabrication Tolerances: Conform to tolerances listed in ACI 315, Figures 4 and 5.

E. Standard Hooks: Conform to the requirements of ACI 318.

F. Marking: Clearly mark bars with waterproof tags showing number of bars, size, mark, length and yield strength. Mark steel with same designation as member in which it occurs.

PART 3 E X E C U T I O N

3.01 PREPARATION

A. Clean reinforcement of scale, loose or flaky rust and other foreign material, including oil, mud or coating that will reduce bond to concrete.

3.02 INSTALLATION

A. Placement Tolerances: Place reinforcement within tolerances of Table 03210A at the end of this Section. Bend tie wire away from forms to maintain the specified concrete coverage.

B. Interferences: Maintain 2-inch clearance from embedded items. Where reinforcing interferes with location of other reinforcing steel, conduit or embedded items, bars may be moved within specified tolerances or one bar diameter, whichever is greater. Where greater movement of bars is required to avoid interference, notify Engineer. Do not cut reinforcement to install inserts, conduit, mechanical openings or other items without approval of Engineer.

C. Concrete Cover: Provide clear cover measured from reinforcement to face of concrete as listed in Table 03210B at the end of this Section, unless otherwise indicated on Drawings.

D. Placement in Forms: Use spacers, chairs, wire ties and other accessory items necessary to

assemble, space and support reinforcing properly. Provide accessories of sufficient number, size and strength to prevent deflection or displacement of reinforcement due to construction loads or concrete placement. Use appropriate accessories to position and support bolts, anchors and other embedded items. Tie reinforcing bars at each intersection, and to accessories. Blocking reinforcement with concrete or masonry is prohibited.

E. Placement for Concrete on Ground: Support bar and wire reinforcement on chairs with sheet metal bases or precast concrete blocks spaced at approximately 3 feet on centers each way. Use minimum of one support for each 9 square feet. Tie supports to reinforcing bars and wires.

F. Vertical Reinforcement in Columns: Offset vertical bars by at least one bar diameter at splices. Provide accurate templates for column dowels to ensure proper placement.

G. Splices:

1. Do not splice bars, except at locations indicated on Drawings or reviewed shop drawings, without approval of Engineer.

2. Lap Splices: Unless otherwise shown or noted, Class B, conforming to ACI 318-89, Section 12.15.1. Tie securely with wire prior to concrete placement, to prevent displacement of splices during concrete placement.

3. Mechanical Bar Splices: Use only where indicated on Drawings or approved by the Engineer. Install in accordance with manufacturer's instructions.

   a. Couplers located at a joint face shall be of a type which can be set either flush or recessed from the face as shown. Seal couplers prior to concrete placement to completely eliminate concrete or cement paste from entering.

   b. Couplers intended for future connections: Recess 1/2 inch minimum from concrete surface. After concrete is placed, plug coupler and fill recess with sealant to prevent contact with water or other corrosive materials.

   c. Unless noted otherwise, match mechanical coupler spacing and capacity to that shown for the adjacent reinforcing.

H. Construction Joints: Place reinforcing continuous through construction joints, unless noted otherwise.

I. Welded Wire Fabric: Install wire fabric in as long lengths as practicable. Unless otherwise indicated on Drawings, lap adjoining pieces at least 6 inches or one full mesh plus 2 inches, whichever is larger. Lace splices with wire. Do not make end laps midway between supporting beams, or directly over beams of continuous structures. Offset end laps in adjacent widths to prevent continuous laps. Conform to WRI - Manual of Standard Practice for Welded Wire Fabric.

J. Field Bending: Shape reinforcing bent during construction operations to conform to Drawings. Bars shall be cold-bent; do not heat bars. Closely inspect reinforcing for breaks. When reinforcing is damaged, replace, Cadweld, or otherwise repair, as directed by Engineer. Do not bend reinforcement after it is embedded in concrete.

K. Epoxy-coated Reinforcing Steel: Install in accordance with Paragraph 3.02J, Field Bending, and in a manner that will not damage epoxy coating. Repair damaged epoxy coating with patching material as specified in Paragraph 2.02A, Bending.

L. Field Cutting: Cut reinforcing bars by shearing or sawing. Do not cut bars with cutting torch.

M. Welding of reinforcing bars is prohibited, except where shown on Drawings.

3.03 GROUTING OF REINFORCING AND DOWEL BARS

A. Use epoxy grout for anchoring reinforcing and dowel steel to existing concrete in accordance with epoxy manufacturer's instructions. Drill hole not more than 1/4 inch larger than steel bar diameter (including height of deformations for deformed bars) in existing concrete. Just before installation of steel, blow hole clean of all debris using compressed air. Partially fill hole with epoxy, using enough epoxy so when steel bar is inserted, epoxy grout will completely fill hole around bar. Dip end of steel bar in epoxy and twist bar while inserting into partially-filled hole.

Table 03210A
REINFORCEMENT PLACEMENT TOLERANCES

PLACEMENT	TOLERANCE IN INCHES
Clear Distance -	
To formed soffit:	-1/4
To other formed surfaces:	"1/4
Minimum spacing between bars:	-1/4
Clear distance from unformed surface to top reinforcement -	
Members 8 inches deep or less:	"1/4
Members more than 8 inches deep but less than 24 inches deep:	
Members 24 inches deep or greater:	-1/4, +1/2
Uniform spacing of bars (but the required number of bars shall not be reduced):	-1/4, +1
Uniform spacing of stirrups and ties (but the required number of stirrups and ties shall not be reduced):	"2
	"1
Longitudinal locations of bends and ends of reinforcement -	
General:	"2
Discontinuous ends of members:	"1/2
Length of bar laps:	-1-1/2
Embedded length -	
For bar sizes No. 3 through 11:	-1
For bar sizes No. 14 and 18:	-2

Table 03210B
MINIMUM CONCRETE COVER FOR REINFORCEMENT

SURFACE	MINIMUM COVER IN INCHES
Slabs and Joists -	
Top and bottom bars for dry conditions -	
No. 14 and No. 18 bars:	1-1/2

SURFACE	MINIMUM COVER IN INCHES
No. 11 bars and smaller:	1
Formed concrete surfaces exposed to earth, water or weather; over, or in contact with, sewage; and for bottoms bearing on work mat, or slabs supporting earth cover -	
No. 5 bars and smaller:	1-1/2
No. 6 through No. 18 bars:	2
Beams and Columns -	
For dry conditions -	
Stirrups, spirals and ties:	1-1/2
Principal reinforcement:	2
Exposed to earth, water, sewage or weather -	
Stirrups and ties:	2
Principal reinforcement:	2-1/2
Walls -	
For dry conditions -	
No. 11 bars and smaller:	1
No. 14 and No. 18 bars:	1-1/2
Formed concrete surfaces exposed to earth, water, sewage or weather, or in contact with ground -	
Circular tanks with ring tension:	2
All others:	2
Footings and Base Slabs -	
At formed surfaces and bottoms bearing on concrete work mat:	
At unformed surfaces and bottoms in contact with earth:	2
Over top of piles:	3
Top of footings -- same as slabs	2

SECTION 03315

CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Cast-in-place concrete work for utility construction or rehabilitation, such as slabs on grade, small vaults, site-cast bases for precast units, and in-place liners for manhole rehabilitation.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No payment will be made for concrete for utility construction under this Section. Include cost in applicable utility structure.

2. Obtain services of and pay for certified testing laboratory to prepare design mixes.

3. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for work in this Section is included in total Stipulated Price.

1.03 REFERENCES

A. ACI 117 - Standard Tolerances for Concrete Construction and Materials.

B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete.

C. ACI 302.1R - Guide for Concrete Floor and Slab Construction.

D. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete.

E. ACI 308 - Standard Practice for Curing Concrete.

F. ACI 309R - Guide for Consolidation of Concrete.

G. ACI 311 - Guide for Concrete Plant Inspection and Field Testing of Ready-Mix Concrete.

H. ACI 315 - Details and Detailing of Concrete Reinforcement.

I. ACI 318 - Building Code Requirements for Reinforced Concrete and Commentary.

J. ACI 544 - Guide for Specifying, Mixing, Placing, and Finishing Steel Fiber Reinforced Concrete.

K. ASTM A 82 - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.

L. ASTM A 185 - Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.

M. ASTM A 615 - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.

N. ASTM A 767 - Standard Specifications for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.

O. ASTM A 775 - Standard Specification for Epoxy-Coated Reinforcing Steel Bars.

P. ASTM A 820 - Standard Specification for Steel Fibers for Fiber-Reinforced Concrete.

Q. ASTM A 884 - Specification for Epoxy-Coated Steel Wire and Welded Wire Fabric for Reinforcement.

R. ASTM C 31 - Standard Practice for Making and Curing Concrete Test Specimens in the Field.

S. ASTM C 33 - Standard Specification for Concrete Aggregates.

T. ASTM C 39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

U. ASTM C 42 - Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.

V. ASTM C 94 - Standard Specification for Ready-Mixed Concrete.

W. ASTM C 138 - Standard Test Method for Unit Weight Yield and Air Content (Gravimetric) of Concrete.

X. ASTM C 143 - Standard Test Method for Slump of Hydraulic Cement Concrete.

Y. ASTM C 150 - Standard Specification for Portland Cement.

Z. ASTM C 172 - Standard Practice for Sampling Freshly Mixed Concrete.

AA. ASTM C 173 - Standard Test Method for Air Content of Freshly Mixed Concrete by Volumetric Method.

AB. ASTM C 231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.

AC. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete.

AD. ASTM C 309 - Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete.

AE. ASTM C 494 - Standard Specification for Chemical Admixtures for Concrete.

AF. ASTM C 595 - Standard Specification for Blended Hydraulic Cements.

AG. ASTM C 685 - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing.

AH. ASTM C 1064 - Standard Test Method for Temperature of Freshly Mixed Portland Cement Concrete.

AI. ASTM C 1077 - Standard Practice for Laboratory Testing of Concrete and Concrete Aggregate for Use in Construction and Criteria for Laboratory Evaluation.

AJ. CRSI MSP-1 - Manual of Standard Practice.

AK. CRSI - Placing Reinforcing Bars.

AL. Federal Specification SS-S-210A - Sealing Compound, Preformed Plastic, for Expansion Joints and Pipe Joints

AM. NRMCA - Concrete Plant Standards.

1.04 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittal Procedures.

B. Submit proposed mix design and test data for each type and strength of concrete in Work.

C. Submit laboratory reports prepared by independent testing laboratory stating that materials used comply with requirements of this Section.

D. Submit manufacturer's mill certificates for reinforcing steel. Provide specimens for testing when required by Engineer.

E. Submit certification from concrete supplier that materials and equipment used to produce and deliver concrete comply with this Specification.

F. Submit shop drawings showing reinforcement type, quantity, size, length, location, spacing, bending, splicing, support, fabrication details, and other pertinent information.

G. For waterstops, submit product information sufficient to indicate compliance with this Section, including manufacturer's descriptive literature and specifications.

1.05 HANDLING AND STORAGE

A. Cement: Store cement off of ground in well-ventilated, weatherproof building.

B. Aggregate: Prevent mixture of foreign materials with aggregate and preserve gradation of aggregate.

C. Reinforcing Steel: Store reinforcing steel to protect it from mechanical injury and formation of rust. Protect epoxy-coated steel from damage to coating.

PART 2 P R O D U C T S

2.01 CONCRETE MATERIALS

A. Cementitious Material:

1. Portland Cement: ASTM C 150, Type II, unless use of Type III is authorized by Engineer; or ASTM C 595, Type IP. For concrete in contact with sewage use Type II cement.

2. When aggregates are potentially reactive with alkalis in cement, use cement not exceeding 0.6 percent alkali content in form of Na2O + 0.658K20.

B. Water: Clean, free from harmful amounts of oils, acids, alkalis, or other deleterious substances, and meeting requirements of ASTM C 94.

C. Aggregate:

1. Coarse Aggregate: ASTM C 33. Unless otherwise indicated, use following ASTM standard sizes: No. 357 or No. 467; No. 57 or No. 67, No. 7. Maximum size: Not larger than 1/5 of narrowest dimension between sides of forms, nor larger than 3/4 of minimum clear spacing between reinforcing bars.

2. Fine Aggregate: ASTM C 33.

3. Determine potential reactivity of fine and coarse aggregate in accordance with Appendix to ASTM C 33.

D. Air Entraining Admixtures: ASTM C 260.

E. Chemical Admixtures:

1. Water Reducers: ASTM C 494, Type A.

2. Water Reducing Retarders: ASTM 494, Type D.

3. High Range Water Reducers (Superplasticizers): ASTM C 494, Types F and G.

F. Prohibited Admixtures: Admixtures containing calcium chloride, thiocyanate, or materials that contribute free chloride ions in excess of 0.1 percent by weight of cement.

G. Reinforcing Steel:

1. Use new billet steel bars conforming to ASTM A 615, ASTM A 767, or ASTM A 775, grade 40 or grade 60, as shown on Drawings. Use deformed bars except where smooth bars are specified. When placed in work, keep steel free of dirt, scale, loose or flaky rust, paint, oil or other harmful materials.

2. Where shown, use welded wire fabric with wire conforming to ASTM A 185 or ASTM A884. Supply gauge and spacing shown, with longitudinal and transverse wires electrically welded together at points of intersection with welds strong enough not to be broken during handling or placing.

3. Wire: ASTM A 82. Use 16 1/2 gauge minimum for tie wire, unless otherwise indicated.

H. Fiber:

1. Fibrillated Polypropylene Fiber:

a. Addition Rate: 1.5 pounds of fiber per cubic yard of concrete.

b. Physical Properties:

1. Material: Polypropylene

2. Length: 1/2 inch or graded

3. Specific Gravity: 0.9l

c. Acceptable Manufacturer: W. R. Grace Company, Fibermesh, or approved equal.

2. Steel Fiber: Comply with applicable provisions of ACI 544 and ASTM A 820.

a. Ratio: 50 to 200 pounds of fiber per cubic yard of concrete.

b. Physical Properties

1. Material: Steel

2. Aspect Ratio (for fiber lengths of 0.5 to 2.5 inch, length divided by diameter or equivalent diameter): 30:1 to 100:1

3. Specific Gravity: 7.8

4. Tensile Strength: 40-400 ksi.

5. Young's Modulus: 29,000 ksi

6. Minimum Average Tensile Strength: 50,000 psi

7. Bending Requirements: Withstand bending around 0.125-inch diameter mandrel to angle of 90 degrees, at temperatures not less than 60 degrees F, without breaking

I. Curing Compounds: Type 2 white-pigmented liquid membrane-forming compounds conforming to ASTM C 309.

2.02 FORM WORK MATERIALS

A. Lumber and Plywood: Seasoned and of good quality, free from loose or unsound knots, knot holes, twists, shakes, decay and other imperfections which would affect strength or impair finished surface of concrete. Use S4S lumber for facing or sheathing. Forms for bottoms of caps: At least 2 inch (nominal) lumber or 3/4 inch form plywood backed adequately to prevent misalignment. For general use, provide lumber of 1-inch nominal thickness or form plywood of approved thickness.

B. Form work for Exposed Concrete Indicated to Receive Rubbed Finish: Form or form-lining surfaces free of irregularities; plywood of 1/4 inch minimum thickness, preferably oiled at mill.

C. Chamfer Strips and Similar Moldings: Redwood, cypress, or pine that will not split when nailed and which can be maintained to true line. Use mill-cut molding dressed on all faces.

D. Form Ties: Metal or fiberglass of approved type with tie holes not larger than 7/8 inch in diameter. Do not use wire ties or snap ties.

E. Metal Forms: Clean and in good condition, free from dents and rust, grease, or other foreign materials that tend to disfigure or discolor concrete in gauge and condition capable of supporting concrete and construction loads without significant distortion. Countersink bolt and rivet heads on facing sides. Use only metal forms which present smooth surface and which line up properly.

2.03 PRODUCTION METHODS

A. Use either ready-mixed concrete conforming to requirements of ASTM C 94, or concrete produced by volumetric batching and continuous mixing in accordance with ASTM C 685.

2.04 MEASUREMENT OF MATERIALS

A. Measure dry materials by weight, except volumetric proportioning may be used when concrete is batched and mixed in accordance with ASTM C 685.

B. Measure water and liquid admixtures by volume.

2.05 DESIGN MIX

A. Use design mixes prepared by certified testing laboratory in accordance with ASTM C 1077 and conforming to requirements of this section.

B. Proportion concrete materials based on ACI 211.1 to comply with durability and strength requirements of ACI 318, Chapters 4 and 5, and this specification. Prepare mix design of Class A concrete so minimum cementitious content is 564 pounds per cubic yard. Submit concrete mix designs to Engineer for review.

C. Proportioning on basis of field experience or trial mixtures in accordance with requirements at Section 5.3 of ACI 318 may be used, when approved by Engineer.

D. Classification:

Class	Cement Sks Per CY	Minimum Strength, psi (MPa)		Maximum W/C Ratio[1]	Air Entrain.
		28 Days	7 Days		
A	5.0 (280 kg/m^3)	3000 (20.6)	2100 (14.5)	0.6	Yes
B	4.0 (225 kg/m^3)	2000 (13.8)	1400 (9.7)	0.6	No
C	6.0 (335 kg/m^3)	3600(24.8)	2520 (17.4)	0.45	Yes
D	4.5 (252 kg/m^3)	2500 (17.2)	1750 (12.1)	0.6	No
H	6.0 (335 kg/m^3)	As indicated	As Indicated	0.45	Yes
I	5.5 (308 kg/m^3)	3500 (24.1)	2450 (16.9)	0.45	Yes
J	2.0 (112 kg/m^3)	800 (5.5)	560 (3.9)	N/A	No
S	6.0 (335 kg/m^3)	4000 (27.6)	2800 (19.3)	0.45	Yes

E. Add steel or polypropylene fibers only when called for on Drawings or in another section of these Specifications.

F. Determine air content in accordance with ASTM C 138, ASTM C 173 or ASTM C 231.

G. Use of Concrete Classes: Use classes of concrete as indicated on Drawings and other Specifications. Use Class B for unreinforced concrete used for plugging pipes, seal slabs, thrust blocks, trench dams, tunnel inverts and concrete fill unless indicated otherwise. Use Class A for all other applications.

2.06 PVC WATERSTOPS

A. Extrude from virgin polyvinyl chloride elastomer. Use no reclaimed or scrap material. Submit waterstop manufacturer's current test reports and manufacturer's written certification that material furnished meets or exceeds Corps of Engineers Specification CRD-C572 and other specified requirements.

B. Flat Strip and Center-Bulb Waterstops:

1. Thickness: not less than 3/8 inch

2. Acceptable Manufacturers:

a. Kirkhill Rubber Co., Brea, California

b. Water Seals, Inc., Chicago, Illinois

c. Progress Unlimited, Inc., New York, New York

d. Greenstreak Plastic Products Co., St. Louis, Missouri

e. Approved equal.

PART 3 E X E C U T I O N

3.01 FORMS AND SHORING

A. Provide mortar-tight forms sufficient in strength to prevent bulging between supports. Set and maintain forms to lines designated such that finished dimensions of structures are within tolerances specified in ACI 117. Construct forms to permit removal without damage to concrete. Forms may be given slight draft to permit ease of removal. Provide adequate clean out openings. Before placing concrete, remove extraneous matter from within forms.

B. Install rigid shoring having no excessive settlement or deformation. Use sound timber in shoring centering. Shim to adjust and tighten shoring with hardwood timber wedges.

C. Design Loads for Horizontal Surfaces of Forms and Shoring: Minimum fluid pressure, 175 pounds per cubic foot; live load, 50 pounds per square foot. Maximum unit stresses: 125 percent of allowable stresses used for form materials and for design of support structures.

D. Back form work with sufficient number of studs and wales to prevent deflection.

E. Re-oil or lacquer liner on job before using. Facing may be constructed of 3/4 inch plywood made with waterproof adhesive backed by adequate studs and wales. In such cases, form lining will not be required.

F. Unless otherwise indicated, form outside corners and edges with triangular 3/4 inch chamfer strips (measured on sides).

G. Remove metal form ties to depth of at least 3/4 inch from surface of concrete. Do not burn off ties. Do not use pipe spreaders. Remove spreaders which are separate from forms as concrete is being placed.

H. Treat facing of forms with approved form coating before concrete is placed. When directed by Engineer, treat both sides of face forms with coating. Apply coating before reinforcement is placed. Immediately before concrete is placed, wet surface of forms which will come in contact with concrete.

3.02 PLACING REINFORCEMENT

A. Place reinforcing steel accurately in accordance with approved Drawings. Secure steel adequately in position in forms to prevent misalignment. Maintain reinforcing steel in place using approved concrete and hot-dip galvanized metal chairs and spacers. Place reinforcing steel in accordance with CRSI Publication "Placing Reinforcing Bars." Request inspection of reinforcing steel by Engineer and obtain acceptance before concrete is placed.

B. Minimum spacing center-to-center of parallel bars: 2 1/2 times nominal bar diameter. Minimum cover measured from surface of concrete to face of reinforcing bar unless shown otherwise on Drawings: 3 inches for surfaces cast against soil or subgrade, 2 inches for other surfaces.

C. Detail bars in accordance with ACI 315. Fabricate reinforcing steel in accordance with CRSI Publication MSP-1, "Manual of Standard Practice." Bend reinforcing steel to required shape while steel is cold. Excessive irregularities in bending will be cause for rejection.

D. Do not splice bars without written approval of Engineer. Approved bar bending schedules or placing drawings constitute written approval. Splice and development length of bars shall conform to ACI 318, Chapters 7 and 12, and as shown on Drawings. Stagger splices or locate at points of low tensile stress.

3.03 EMBEDDED ITEMS

A. Install conduit and piping as shown on Drawings. Accurately locate and securely fasten conduit, piping, and other embedded items in forms.

B. Install waterstops as specified in other sections and according to manufacturer's instructions. Securely position waterstops at joints as indicated on Drawings. Protect waterstops from damage or displacement during concrete placing operations.

3.04 BATCHING, MIXING AND DELIVERY OF CONCRETE

A. Measure, batch, mix, and deliver ready-mixed concrete in accordance with ASTM C 94, Sections 8 through 11. Produce ready-mixed concrete using automatic batching system as described in NRMCA Concrete Plant Standards, Part 2 - Plant Control Systems.

B. Measure, mix and deliver concrete produced by volumetric batching and continuous mixing in accordance with ASTM C 685, Sections 6 though 8.

C. Maintain concrete workability without segregation of material and excessive bleeding. Obtain approval of Engineer before adjustment and change of mix proportions.

D. Ready-mixed concrete delivered to site shall be accompanied by batch tickets providing information required by ASTM C 94, Section 16. Concrete produced by continuous mixing shall be accompanied by batch tickets providing information required by ASTM C 685, Section 14.

E. When adverse weather conditions affect quality of concrete, postpone concrete placement. Do not mix concrete when air temperature is at or below 40 degrees F and falling. Concrete may be mixed when temperature is 35 degrees F and rising. Take temperature readings in shade, away from artificial heat. Protect concrete from temperatures below 32 degrees F until concrete has cured for minimum of 3 days at 70 degrees F or 5 days at 50 degrees F.

F. Clean, maintain and operate equipment so that it thoroughly mixes material as required.

G. Hand-mix only when approved by Engineer.

3.05 PLACING CONCRETE

A. Give sufficient advance notice to Engineer (at least 24 hours prior to commencement of operations) to permit inspection of forms, reinforcing steel, embedded items and other preparations for placing concrete. Place no concrete prior to Engineer's approval.

B. Schedule concrete placing to permit completion of finishing operations in daylight hours. However, when necessary to continue after daylight hours, light site as required. When rainfall occurs after placing operations are started, provide covering to protect work.

C. Use troughs, pipes and chutes lined with approved metal or synthetic material in placing concrete so that concrete ingredients are not separated. Keep chutes, troughs and pipes clean and free from coatings of hardened concrete. Allow no aluminum material to be in contact with concrete.

D. Limit free fall of concrete to 4 feet. Do not deposit large quantities of concrete at one location so that running or working concrete along forms is required. Do not jar forms after concrete has taken initial set; do not place strain on projecting reinforcement or anchor bolts.

E. Use tremies for placing concrete in walls and similar narrow or restricted locations. Use tremies made in sections, or provide in several lengths, so that outlet may be adjusted to proper height during placing operations.

F. Place concrete in continuous horizontal layers approximately 12 inches thick. Place each layer while layer below is still plastic.

G. Compact each layer of concrete with concrete spading implements and mechanical vibrators of approved type and adequate number for size of placement. When immersion vibrators cannot be used, use form vibrators. Apply vibrators to concrete immediately after depositing. Move vibrator

vertically through layer of concrete just placed and several inches into plastic layer below. Do not penetrate or disturb layers previously placed which have partially set. Do not use vibrators to aid lateral flow concrete. Closely supervise consolidation to ensure uniform insertion and duration of immersion.

H. Handling and Placing Concrete: Conform to ACI 302.1R, ACI 304R and ACI 309R.

3.06 WATERSTOPS

A. Embed waterstops in concrete across joints as shown. Waterstops shall be continuous for extent of joint; make splices necessary to provide continuity in accordance with manufacturer's instructions. Support and protect waterstops during construction operations; repair or replace waterstops damaged during construction.

B. Install waterstops in concrete on one side of joints, leaving other side exposed until next pour. When waterstop will remain exposed for 2 days or more, shade and protect exposed waterstop from direct rays of sun during entire exposure and until exposed portion of waterstop is embedded in concrete.

3.07 CONSTRUCTION JOINTS

A. Definitions:

1. Construction joint: Contact surface between plastic (fresh) concrete and concrete that has attained initial set.

2. Monolithic: Manner of concrete placement to reduce or eliminate construction joints; joints other than those indicated on Drawings will not be permitted without written approval of Engineer. Where so approved, make additional construction joints with details equivalent to those indicated for joints in similar locations.

3. Preparation for Construction Joints: Roughen surface of concrete previously placed, leaving some aggregate particles exposed. Remove laitance and loose materials by sandblasting or high-pressure water blasting. Keep surface wet for several hours prior to placing of plastic concrete.

3.08 CURING

A. Comply with ACI 308. Cure by preventing loss of moisture, rapid temperature change and mechanical injury for period of 7 curing days when Type II or IP cement has been used and for 3 curing days when Type III cement has been used. Start curing as soon as free water has disappeared from concrete surface after placing and finishing. A curing day is any calendar day in which temperature is above 50 degrees F for at least 19 hours. Colder days may be counted when air temperature adjacent to concrete is maintained above 50 degrees F. In continued cold weather, when artificial heat is not provided, removal of forms and shoring may be permitted at end of calendar days equal to twice required number of curing days. However, leave soffit forms and shores in place until concrete has reached specified 28 day strength, unless directed otherwise by Engineer.

B. Cure formed surfaces not requiring rubbed-finished surface by leaving forms in place for full curing period. Keep wood forms wet during curing period. Add water as needed for other types of forms. Or, at Contractor's option, forms may be removed after 2 days and curing compound applied.

C. Rubbed Finish:

1. At formed surfaces requiring rubbed finish, remove forms as soon as practicable without damaging surface.

2. After rubbed-finish operations are complete, continue curing formed surfaces by using either approved curing/sealing compounds or moist cotton mats until normal curing period is complete.

D. Unformed Surfaces: Cure by membrane curing compound method.

1. After concrete has received final finish and surplus water sheen has disappeared, immediately seal surface with uniform coating of approved curing compound, applied at rate of coverage recommended by manufacturer or as directed by Engineer. Do not apply less than 1 gallon per 180 square feet of area. Provide satisfactory means to properly control and check rate of application of compound.

2. Thoroughly agitate compound during use and apply by means of approved mechanical power pressure sprayers equipped with atomizing nozzles. For application on small miscellaneous items, hand-powered spray equipment may be used. Prevent loss of compound between nozzle and concrete surface during spraying operations.

3. Do not apply compound to dry surface. When concrete surface has become dry, thoroughly moisten surface immediately prior to application. At locations where coating shows discontinuities, pinholes or other defects, or when rain falls on newly coated surface before film has dried sufficiently to resist damage, apply additional coat of compound at specified rate of coverage.

3.09 REMOVAL OF FORMS AND SHORING

A. Remove forms from surfaces requiring rubbing only as rapidly as rubbing operation progresses. Remove forms from vertical surfaces not requiring rubbed-finish when concrete has aged for required number of curing days. When curing compound is used, do not remove forms before 2 days after concrete placement.

B. Leave soffit forms and shores in place until concrete has reached specified 28-day strength, unless directed otherwise by Engineer.

3.10 DEFECTIVE WORK

A. Immediately repair defective work discovered after forms have been removed. When concrete surface is bulged, uneven, or shows excess honeycombing or form marks which cannot be repaired satisfactorily through patching, remove and replace entire section.

3.11 FINISHING

A. Patch honeycomb, minor defects and form tie holes in concrete surfaces with cement mortar mixed one part cement to two parts fine aggregate. Repair defects by cutting out unsatisfactory material and replacing with new concrete, securely keyed and bonded to existing concrete. Finish to make junctures between patches and existing concrete as inconspicuous as possible. Use stiff mixture and thoroughly tamp into place. After each patch has stiffened sufficiently to allow for greatest portion of shrinkage, strike off mortar flush with surface.

B. Apply rubbed finish to exposed surfaces of formed concrete structures as noted on Drawings. After pointing has set sufficiently, wet surface with brush and perform first surface rubbing with No. 16 carborundum stone, or approved equal. Rub sufficiently to bring surface to paste, to remove form marks and projections, and to produce smooth, dense surface. Add cement to form surface paste as necessary. Spread or brush material, which has been ground to paste, uniformly over surface and allow to reset. In preparation for final acceptance, clean surfaces and perform final finish rubbing with No. 30 carborundum stone or approved equal. After rubbing, allow paste on surface to reset; then wash surface with clean water. Leave structure with clean, neat and uniform-appearing finish.

C. Apply wood float finish to concrete slabs.

3.12 FIELD QUALITY CONTROL

A. Testing shall be performed under provisions of Section 01454 - Testing Laboratory Services.

B. Unless otherwise directed by Engineer, following minimum testing of concrete is required. Testing shall be performed by qualified individuals employed by approved independent testing agency, and conform to requirements of ASTM C 1077.

1. Take concrete samples in accordance with ASTM C 172.

2. Make one set of four compression test specimens for each mix design at least once per day and for each 150 cubic yards or fraction thereof. Make, cure and test specimens in accordance with ASTM C 31 and ASTM C 39.

3. When taking compression test specimens, test each sample for slump according to ASTM C 143, for temperature according to ASTM C 1064, for air content according to ASTM C 231, and for unit weight according to ASTM C 138.

4. Inspect, sample and test concrete in accordance with ASTM C 94, Section 13, 14, and 15,and ACI 311-5R.

C. Test Cores: Conform to ASTM C 42.

D. Testing High Early Strength Concrete: When Type III cement is used in concrete, specified 7 day and 28 day compressive strengths shall be applicable at 3 and 7 days, respectively.

E. If 7-day or 3-day test strengths (as applicable for type of cement being used) fail to meet established strength requirements, extended curing or resumed curing on those portions of structure represented by test specimens may be required. When additional curing fails to produce required strength, strengthening or replacement of portions of structure which fail to develop required strength may be required by Engineer, at no additional cost to Owner.

3.13 PROTECTION

A. Protect concrete against damage until final acceptance by Owner.

B. Protect fresh concrete from damage due to rain, hail, sleet, or snow. Provide protection while concrete is still plastic, and whenever precipitation is imminent or occurring.

C. Do not backfill around concrete structures or subject them to design loadings until components of structure needed to resist loading are complete and have reached specified 28 day compressive strength, except as authorized otherwise by Engineer.

END OF SECTION

EXHIBIT "B"

BID PAGE

Hidalgo County
Hidalgo County Precinct No. 1 – Paving & Drainage Improvements to: Spanish Palms Subdivision
Bid No.: 2015-256-08-12-MSS

SCOPE OF WORK DESCRIPTION:
Paving and Drainage improvements to Spanish Palms Subdivision

BID PRICE: $ **197,309.00**

BIDDER/COMPANY NAME: **2GS, LLC**

ADDRESS: P.O. Box 595

CITY/STATE/ZIP CODE: Penitas, Texas 78576

PHONE & FAX NO.'S: (956) 424-3414 / (956) 683-6149

CELLULAR #: (956) 607-4448

AUTHORIZED SIGNATURE:

PRINTED NAME: Humberto Garcia Jr.

TITLE: Member

OPENED 3:05 PM 8-12-15

Witnessed

BID FOR UNIT PRICE CONTRACTS

PLACE Hidalgo County Pct.1
DATE August 12, 2015
PROJECT NO. 2015-256-08-12-MSS

Proposal of **2GS, LLC** (hereinafter called "Bidder") a corporation/ a partnership, or an individual doing business as: Limited Liability Company.

TO the **Hidalgo County – Precinct No. 1** (hereinafter called "Owner")

Gentlemen:

The Bidder, in compliance with your invitation for bids for the construction of Spanish Palms Subdivision having examined the plans and specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies; and to construct the project in accordance with the Contract Documents, within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this proposal is part.

Bidder hereby agrees to commence work under this contract on or about date to be specified in written "Notice to Proceed" of the owner and to fully complete the project within 150 consecutive calendar days thereafter as stipulated in the specifications. Bidder further agrees to pay as liquidated damages the sum of $500.00 for each consecutive calendar day thereafter as herein after provided in Paragraph 19 of the General Conditions.

BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDUM:

_____

_____

*Insert corporation, partnership or individual as applicable.
Bidder agrees to perform all of the Paving & Drainage Improvements work described in the specifications and shown on plans, for the following unit prices:

ITEM NO.	ITEM DESCRIPTION		UNIT	UNIT QTY.	UNIT PRICE IN FIGURES (1)	TOTAL FIGURES
	General Project					
1-1	Mobilization, Bonds and Insurance (not to exceed 3% of Total Bid) and project signage.		LS	1	7,000.00	7,000.00
1-2	Preparation of Right of Way.		LS	1	30,000.00	30,000.00
1-3	Installation and maintenance of barricades, signs and traffic handling per approved Traffic Control Plan.		LS	1	3,000.00	3,000.00
					Total General Project	40,000.00
	Spanish Palms Subdivision Road Paving and Drainage Improvements					
2-1	Remove & Dispose of existing curb & gutter according to the specifications; complete in place.		LS	1	6,500.00	6,500.00
2-2	Prime Coat (MC-30) (0.2 GAL/SY), according to the plans and specifications; complete in place.		GAL	1379	4.00	5,516.00
2-3	8-inch Scarify Existing Caliche Base and Asphalt; re-compact salvaged material for flex-base (8-inch compacted thickness) to a width of 28-ft (additional caliche to be included on this bid item) according to the plans and specifications complete in place.		SY	8055	4.50	36,247.50
2-4	8-inch Scarify, Lime Stabilize (3%) and compact Sub-Grade according to the plans and specifications complete in place.		SY	8055	5.50	44,302.50
2-5	6-inch Residential Concrete Driveway (3500 PSI), according to the plans and specifications; complete in place.		SY	503	40.00	20,120.00
2-6	Remove and replace existing caliche driveways and asphalt driveways with asphalt driveway, according to the plans and specifications; complete in place.		SY	440	16.00	7,040.00
2-7	4-inch Concrete Rip Rap according to the plans and specifications; complete in place.		SY	84	40.00	3,360.00
2-8	Connect to Existing Grate Inlets according to the plans and specifications; complete in place.		EA	4	550.00	2,200.00
2-9	Furnish and Install Type 'M' Junction Box w/ Manhole Enclosure according to the plans and specifications; complete in place.		EA	1	2,500.00	2,500.00
2-10	Furnish and Install 15-inch HPP according to the plans and specifications; complete in place.		LF	1175	12.00	14,100.00
2-11	Furnish and Install 18-inch HPP according to the plans and specifications; complete in place.		LF	192	14.00	2,688.00
2-12	Furnish and Install Biodegradable Log according to the plans and specifications; complete in place.		LF	247	4.00	988.00
2-13	Remove and Dispose Biodegradable Log according to the plans and specifications; complete in place.		LF	247	1.00	247.00

2-14	Fertilizer, Vegetative Watering an Seeding according to the plans and specifications; complete in place.		LS	1	11,500.00	11,500.00
		Spanish Palms Subdivision Road Paving and Drainage Improvements				157,309.00
					Total Base Bid	**$197,309.00**

ALTERNATE NO. 1

ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT QTY.	UNIT PRICE IN FIGURES (1)	TOTAL FIGURES
	Alternate Bid				
2-2	Place 11/2-inch Hot Mix Asphalt Concrete Type "D" (11/2-inch compacted thickness) to a width of 24-ft according to the plans and specifications; complete in place.	SY	6895	9.00	62,055.00
				Total Alternate Bid	

TOTAL BASE BID + ALTERNATE BID: $ 259,364.00

(words) two hundred fifty-nine thousand three hundred sixty-four dollars and zero cents

(AMOUNTS ARE TO BE SHOWN IN BOTH WORDS AND FIGURES. IN CASE OF DISCREPANCY, THE AMOUNT SHOWN IN WORDS WILL GOVERN)

The above unit price shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract attached within 10 days and deliver a Surety Bond, or Bonds as required by Paragraph 29 of the General Conditions. The bid security attached in the sum of

$ 5% of Amount Bid .

($ 5% of Amount Bid) is to become the property of the Owner in the event that contract and the bond are not executed within the time above set forth, as liquidated damages for the delay and additional expenses to the owner caused thereby.

Respectfully submitted:

By: _____ Member

(Title)

P.O. Box 595, Penitas, Texas 78576

(Business Address and Zip Code)

(SEAL – if bid is by a corporation)

OPENED 3:05 PM 8/1

Witnessed

EXHIBIT "C"

Insurance Requirements
Applicable to the Acquisition of Goods and /or Services (other than Professional Services)

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 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.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/29/2015

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	San Juan Insurance Agency, Inc DBA Valley Ins Providers &/or Truckers Ins PO Drawer 3783 McAllen TX 78502-
CONTACT NAME:	NORMA PEREZ
PHONE (A/C, No, Ext):	(956)781-6663
FAX (A/C, No):	(956)702-7556
E-MAIL ADDRESS:	nperez@vip-ins.net
INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Technology Insurance Co., Inc.	16691
INSURER B : Technology Insurance Co., Inc.	
INSURER C : Great American Specialty E & S	
INSURER D :	
INSURER E :	
INSURER F :	
INSURED	2GS, LLC PO BOX 595 Penitas TX 78576-

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	X	X	WPP124419300	02/21/2015	02/21/2016	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY	X	X	WPP124419300	02/21/2015	02/21/2016	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
C	UMBRELLA LIAB OCCUR			XS3718448	04/10/2015	04/10/2016	EACH OCCURRENCE	$ 2,000,000
	X EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 2,000,000
	DED RETENTION $							$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N		X	TSF-0001234244	02/21/2015	02/21/2016	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) N/A						E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
B	Contractor's Equipment			WPP124419300	02/21/2015	02/21/2016	Limit	483,777
							Leased/Rented	250,000
							Deductible	1,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Hidalgo County Pct. No.1- Paving & Drainage Improvements to: Spanish Palms Subdivision
Project No: 2015-256-08-12-MSS

AI 014058

CERTIFICATE HOLDER

HIDALGO COUNTY
ATTN: PURCHASING DEPARTMENT
2812 S. HIGHWAY BUSINESS 281
EDINBURG TX 78539-

Fax: ( ) -

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 D Young

© 1988-2014 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

SUMMARY OF INSURANCE: VEHICLE INFORMATION

DATE 09/24/2015

PRODUCER

San Juan Insurance Agency
DBA Valley Ins Providers
PO Drawer 3783
McAllen TX 78502
(956) 781-6663

APPLICANT NAME AND MAILING ADDRESS

2GS, LLC
PO BOX 595
Penitas TX 78576-
(956)424-3414

CLIENT ID 8124

POLICY WPP124419300 06/30/2015 to 02/21/2016

YEAR	MAKE AND MODEL		VEHICLE IDENTIFICATION NUMBER	CLASS	ACTUAL CASH VALUE
2002	FORD	F150	1FTNW21F82ED57063		
2009	CHEVY	1/2 T	3GCEC23009G191447		30,000
2000	FRONTAINE	LOWBOY	4LF4S5239Y3510427		
1984	CHEVY	WATER TRK	1GBM7D1G3EV120065		
1980	MACK	DUMP TRUCK	RWS786LST52722		
2012	CHEVY	P/U	1GC1KXCG1CF222427		46,000
2001	VOLVO	VNL	4V4NC9TJ41N312871		
2005	FORD	F350	1FDWF36P55EC16267		24,675
2007	CHEVY	P/U	1GCHC33D17F176752		
2001	FORD	F250	1FTNW20L31EB97261		
2004	DODGE	1/2 T	1D7HL38K04S782009		
2001	INTL	4400	1HSSDAAN4IH340873		
2004	Ford	Pick up	1FTYR10DX4PA75240		
2015	FORD	F350	1FT8W3BT2FEB93208		60,000
2012	FORD	F250	1FT7W2BT3CED07346		
2004	FORD	PICKUP	1FTRF12WX4NC67216		
1998	Ford	water trk	1FDNF70JXWVA00083		
2015	Ford	F-150	1FTEW1EF9FFC52536		62,763.62

THIS DOCUMENT OUTLINES THE GENERAL COVERAGES PRESENTED AND IN NO WAY CHANGES OR AFFECTS THE INSURANCE UNDER ANY POLICY ACTUALLY ISSUED. ALL PROTECTION IS SUBJECT TO ACTUAL POLICY CONDITIONS AND EXCLUSIONS.

Insurance Requirement Acknowledgment

I, Humberto Garcia Jr., authorized representative for 2GS, LLC (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 Commissioners' 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 Commissioners' Court; currently carry the following:

Automobile Liability: $_____ General Liability: $_____

☑ have already been met, see attached copy of insurance certificate.

_____
Authorized Representative

August 12, 2015
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, Humberto Garcia Jr., possess all of the APPLICABLE:

1. Licenses: _____.
2. Bonds: Bid Bond; Performance and Payment Bonds.
3. Certificates: HUB Certified.
4. Permits: _____.
5. Other: General Liability and Workers Compensation coverage.

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

August 12th, 2015.
Date

2GS, LLC.
Company

P.O. Box 595.
Address

Peñitas, Texas 78576.
City, State, Zip

Hidalgo County
Arturo Guajardo Jr.
County Clerk
Edinburg,TX 78540

70 2015 02636526

Instrument Number: 2015-2636526
As
Recording

Recorded On: August 11, 2015

Billable Pages: 1

Number of Pages: 2

Parties:

To

Comment: CIQ

** Examined and Charged as Follows: **

Recording	26.00
Total Recording:	26.00

********** THIS PAGE IS PART OF THE INSTRUMENT **********
Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.

File Information:

Document Number: 2015-2636526
Receipt Number: 1541612
Recorded Date/Time: August 11, 2015 08:31A

User / Station: T Rivera - Cash Station 01

Record and Return To:

2GS LLC
ORIGINAL RETURNED TO CUSTOMER
PENITAS TX 78576

STATE OF TEXAS
COUNTY OF HIDALGO

I hereby certify that this instrument was FILED in the File Number sequence on the date/time printed heron, and was duly RECORDED in the Official Records of Hidalgo County, Texas

Arturo Guajardo Jr.
County Clerk
Hidalgo County, TX

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor or other person doing business with local governmental entity

OFFICE USE ONLY
Date Received

This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person 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 person becomes aware of facts that require the statement to be filed. *See* Section 176.006, Local Government Code.

A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

1 **Name of person who has a business relationship with local governmental entity.**

2GS, LLC

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 the originally filed questionnaire becomes incomplete or inaccurate.)

3 **Name of local government officer with whom filer has employment or business relationship.**

N/A

Name of Officer

This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?

☐ Yes ☑ No

B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☑ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

☐ Yes ☑ No

D. Describe each employment or business relationship with the local government officer named in this section.

4 Humberto Garcia Jr. — August 10, 2015

Signature of person doing business with the governmental entity — Date

Adopted 06/29/2007

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, Humberto Garcia Jr., 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 any 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 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: _____ Member

Subscribed and sworn to before me this 12th day of Aug, 2015.

_____
Notary Public

JOSE L. SAENZ
My Commission Expires
November 12, 2015

My commission expires: NOVEMBER, 2015

Certification
Regarding Debarment, Suspension Incligibility

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: Humberto Garcia Jr.

Title: Member

Telephone Number: (956) 424-3414

Date: August 12, 2015

If the proposer is unable to certify to all of the statements in this Certification, such proposer should attach an explanation to this proposal.

Non-Collusion Affidavit Of Prime Bidder

State of Texas §
§
County of Hidalgo §

Humberto Garcia Jr., being first duly sworn, deposes and says that:

(1) He Member, of

2GS, LLC, the Bidder that has submitted the attached Bid:

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such bid:

(3) Such bid is genuine and is not a collusive or sham Bid:

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Owner or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

Member
(Title)

Subscribed and sworn to before me this 12th day of August, 2015.

_____
NOTARY PUBLIC
(Title)

JOSE L. SAENZ
My Commission Expires
November 12, 2015

My Commission expires Nov. 12, 2015

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: 2GS, LLC **Telephone No. (** 956 **)** 424-3414

dba Name:

Legal Name: 2GS, LLC

Mailing Address : P.O. Box 595 **Fax No. (** 956 **)** 683-6149

Physical Address: 1307 W. Expressway 83, Suite C

City, State, Zip Peñitas, Texas 78576 **Tax I.D. No.** 45-4338911

Remit to Address : P.O. Box 595 **City, State, Zip** Peñitas, Texas 78576

E-Mail Address: bgarcia@2gsllc.com

Representative(s) Name(s) & Title(s) Humberto Garcia Jr., Member

Type of Organization (check one): ____ Individual ____ Partnership ____ Corporation ____ Non-Profit
✓ LLC ____ Sole Proprietor ____ Other, Specify

State Identification No. 45-4338911 **(Please attached completed W-9 form with this application)**
Federal Identification No. or (if individual) SS No.

State of Incorporation: Texas **Date:** 1/20/2012 **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:

Humberto Garcia Jr., Member

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): 1454338911900 **or are Certificate(s) attached?:** ☑ Yes ☐ No

What type of product(s) is/are solicited by your company?: Paving and Underground Utility Infrastructure Improvements

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.:**

Revised12/14/06

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 Texas Comptroller of Public Accounts

Indicate Certification No(s).: 1454338911900 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?: 0 %
(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:

SUSAN COMBS

TEXAS COMPTROLLER *of* PUBLIC ACCOUNTS

P.O. BOX 13186 • AUSTIN, TX 78711-3186

The Texas Comptroller of Public Accounts (CPA) administers the Statewide Historically Underutilized Business (HUB) Program for the State of Texas, which includes certifying minority and woman-owned businesses as HUBs and is designed to facilitate the participation of minority and woman-owned businesses in state agency procurement opportunities.

We are pleased to inform you that your application for certification/re-certification as a HUB has been approved. Your company's profile is listed in the State of Texas HUB Directory and may be viewed online at http://www.window.state.tx.us/procurement//cmbl/hubonly.html. Provided that your company continues to meet HUB eligibility requirements, the enclosed HUB certificate is valid for four years.

You must notify the HUB Program in writing of any changes affecting your company's compliance with the HUB eligibility requirements, including changes in ownership, day-to-day management, control and/or principal place of business. *Note: Any changes made to your company's information may require the HUB Program to re-evaluate your company's eligibility.* As part of the HUB Program's monitoring efforts, you will be sent a HUB Certification Eligibility Affidavit in approximately 24 months. Failure to complete and submit the HUB Certification Eligibility Affidavit, and/or failure to notify us of changes affecting your company's compliance with HUB eligibility requirements, may result in the revocation of your company's certification.

Please reference the enclosed pamphlet for additional resources, such as the state's Centralized Master Bidders List (CMBL), that can increase your chance of doing business with the state.

Thank you for your participation in the HUB Program! If you have any questions, you may contact a HUB Program representative at (512) 463-5872 or toll-free in Texas at (888) 863-5881.

Texas Historically Underutilized Business (HUB) Certificate

HUB
Statewide Historically Underutilized Business Program

Certificate/VID Number:	**1454338911900**
File/Vendor Number:	**477300**
Approval Date:	**22-OCT-2012**
Scheduled Expiration Date:	**22-OCT-2016**

The Texas Comptroller of Public Accounts (CPA), hereby certifies that

2GS, LLC

has successfully met the established requirements of the State of Texas Historically Underutilized Business (HUB) Program to be recognized as a HUB. This certificate printed 26-OCT-2012, supersedes any registration and certificate previously issued by the HUB Program. If there are any changes regarding the information (i.e., business structure, ownership, day-to-day management, operational control, business location) provided in the submission of the business' application for registration/certification as a HUB, you must immediately (within 30 days of such changes) notify the HUB Program in writing. The CPA reserves the right to conduct a compliance review at any time to confirm HUB eligibility. HUB certification may be suspended or revoked upon findings of ineligibility.

Paul A. Gibson

Paul Gibson, Statewide HUB Program Manager
Texas Procurement and Support Services

Note: In order for State agencies and institutions of higher education (universities) to be credited for utilizing this business as a HUB, they must award payment under the Certificate/VID Number identified above. Agencies and universities are encouraged to validate HUB certification prior to issuing a notice of award by accessing the Internet (**http://www.window.state.tx.us/procurement/cmbl/cmblhub.html**) or by contacting the HUB Program at **1-888-863-5881** or **512- 463-5872**.

Rev. 09/12

CONSTRUCTION CONTRACT
#C-15-256-08-25

This Agreement entered into this **25th** day of, **August 2015** by and between **Hidalgo County** (hereinafter called the "OWNER") and **2GS, LLC** (a Limited Liability Company) of **Peñitas,** 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: **Hidalgo County Precinct No. 1 – Paving & Drainage Improvements to: Spanish Palms Subdivision**

PROJECT No.: **2015-256-08-12-MSS**

PROJECT DESCRIPTION: **Paving and Drainage Improvements to: Spanish Palms Subdivision**

heinafter called the project, for the sum of **($259,364.00) – Two hundred fifty-nine thousand three hundred sixty-four dollars and zero 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 **LeFevre Engineering & Management Consulting, LLC** 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 **(150) One hundred and fifty** consecutive calendar days thereafter. The CONTRACTOR further agrees to pay, as liquidated damages, the sum of **($500.00) Five 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 five (5) counterparts, each of which shall be deemed an original, in year and day first above mentioned.

APPROVED BY COMMISSIONERS COURT ON: August 25th, 2015.

CONTRACTOR: _____
Print Name & Title: Humberto Garcia Jr.
Name of Firm: **2GS, LLC**
Address: P.O. Box 595
Penitas, Texas 78576
Federal I.D./S.S.: 45-4338911

STATE OF TEXAS '
'
COUNTY OF HIDALGO '

This instrument was acknowledged before me on this the 9th day of September, 20 15, by Humberto Garcia Jr., Member of and on behalf of 2GS, LLC.
(Title) (a corporation) (a partnership) (an individual)

NOTARY PUBLIC STATE OF TEXAS
JOSE L. SAENZ
My Commission Expires
November 12, 2015

Jose L. Saenz
Notary Public - Signature

APPROVED AS TO FORM
Atlas, Hall, L.L.P.
BY: _____

ATTEST:

Arturo Guajardo Jr., County Clerk

COUNTY OF HIDALGO

Ramon Garcia
Ramon Garcia, County Judge

APPROVED BY
COMMISSIONERS' COURT
ON: 10/13/15 grb



Form **W-9**
(Rev. December 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)
2GS, LLC

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) ▶ **S**

☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)
P.O. BOX 595

Requester's name and address (optional)

City, state, and ZIP code
PENITAS, TEXAS 78576

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
			-		-				

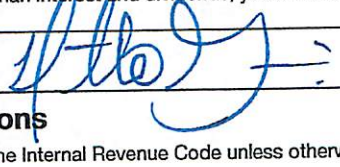
Employer identification number
4	5	-	4	3	3	8	9	1	1

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 ▶ August 12, 2015

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.

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 28% of such payments (after December 31, 2002). This is called "backup withholding." Payments that may be subject to backup withholding include 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, or

2. You do not certify your TIN when required (see the Part II instructions on page 4 for details), or

3. The IRS tells the requester that you furnished an incorrect TIN, or

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.

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 social security card. 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 social security card on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name" line.

Limited liability company (LLC). If you are a single-member LLC (including a foreign LLC with a domestic owner) that is disregarded as an entity separate from its owner under Treasury regulations section 301.7701-3, enter the owner's name on the "Name" line. Enter the LLC's name on the "Business name" line. Check the appropriate box for your filing status (sole proprietor, corporation, etc.), then check the box for "Other" and enter "LLC" in the space provided.

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" line.

Note. You are requested to check the appropriate box for your status (individual/sole proprietor, corporation, etc.).

Exempt From Backup Withholding

If you are exempt, enter your name as described above and check the appropriate box for your status, then check the "Exempt from backup withholding" box in the line following the business 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.

Exempt payees. Backup withholding is not required on any payments made to the following payees:

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 chart below shows types of payments that may be exempt from backup withholding. The chart applies to the exempt recipients listed above, 1 through 15.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt recipients except for 9
Broker transactions	Exempt recipients 1 through 13. Also, a person registered under the Investment Advisers Act of 1940 who regularly acts as a broker
Barter exchange transactions and patronage dividends	Exempt recipients 1 through 5
Payments over $600 required to be reported and direct sales over $5,000 [1]	Generally, exempt recipients 1 through 7 [2]

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation (including gross proceeds paid to an attorney under section 6045(f), even if the attorney is a corporation) and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees; 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-owner LLC that is disregarded as an entity separate from its owner (see *Limited liability company (LLC)* on page 2), enter your SSN (or EIN, if you have one). If the LLC is a corporation, partnership, etc., 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.socialsecurity.gov/online/ss-5.pdf*. 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 ID Numbers under Related Topics. You can get Forms W-7 and SS-4 from the IRS by visiting *www.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. Writing "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 items 1, 4, and 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). Exempt recipients, see *Exempt From Backup Withholding* on page 2.

Signature requirements. Complete the certification as indicated in 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 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 single-owner LLC	The owner [3]
For this type of account:	**Give name and EIN of:**
6. Sole proprietorship or single-owner LLC	The owner [3]
7. A valid trust, estate, or pension trust	Legal entity [4]
8. Corporate or LLC electing corporate status on Form 8832	The corporation
9. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
10. Partnership or multi-member LLC	The partnership
11. A broker or registered nominee	The broker or nominee
12. 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

[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 second name line. You may use either your SSN or EIN (if you have one). If you are a sole proprietor, IRS encourages you to use your SSN.

[4] List first and circle the name of the legal 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.)

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.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons who must file information returns with the IRS to report interest, dividends, and certain other income paid to you, mortgage interest you paid, the acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA, or Archer MSA or HSA. The IRS uses the numbers for identification purposes and to help verify the accuracy of your tax return. The IRS may also provide this information to the Department of Justice for civil and criminal litigation, and to cities, states, and the District of Columbia to carry out their tax laws. We may also disclose this information to other countries under a tax treaty, to federal and state agencies to enforce federal nontax 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. Payers must generally withhold 28% of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to a payer. Certain penalties may also apply.

STATEMENT OF CREDENTIALS

1. **GENERAL:** In order to assist the Owner in determining the ability of each Bidder to properly fulfill the requirements of this proposed contract, the Bidder will complete the following items. All questions must be answered and the data given must be clear and comprehensive. **This statement must be notarized.** If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he/she desires.

Name of Bidder: 2GS, LLC

Address: P.O. Box 595

Peñitas, Texas 78576

Date Organized: January 20, 2012 Date Incorporated: January 20, 2012

Office Number: 956-424-3414 Fax Number: 956-683-6149

Number of years in business under present name: 3 years

Type of work performed by your company: Paving and Underground Civil Utility Infrastructure

Have you ever failed to complete any work awarded to you? No

Have you ever defaulted on a contract? No

2. **EXPERIENCE:** The Bidder will give below a list of similar projects which he/she has completed within the last five (5) years.

1. Owner: Hidago County Urban County Program

Address: 427 E. Duranta Ave., Suite 107, Alamo, Texas 78576

Ph/Fx Number: (956) 787-8127 Email: monica.leal@co.hidalgo.tx.us

Scope of Work Description: City of Progreso - Street Improvements

Date Completed: July 2013 Total Cost: $485,155

****

2. Owner: La Joya ISD

Address: 201 E. Expressway 83, La Joya, Texas 78560

Ph/Fx Number: (956) 580-8868 Email: d.garza9@lajoyaisd.net - Daniel Garza

Scope of Work Description: Paving & Drainage Improvements to Elementary Schools

Date Completed: January 2014 Total Cost: $687,000

****

3. Owner: Hidalgo County Pct. #2

Address: 1304 S. 25th Street, Edinburg, Texas 78539

Ph/Fx Number: 956-318-2626 Email: raul.sesin@hcdd1.org

Scope of Work Description: Little Mexico Subd. and S. Tower Estates Paving Improvements & Drainage Improvements

Date Completed: October 2013 Total Cost: $468,569

****

4. Owner: Hidalgo County Pct.#2

Address: 1304 S. 25th Street, Edinburg, Texas 78539

Ph/Fx Number: 956-318-2626 Email: raul.sesin@co.hidalgo.tx.us

Scope of Work Description: McColl Road Overlay & Curb & Gutter Improvements

Date Completed: August 2013 Total Cost: $408,758

****

5. Owner: City of San Juan

Address: 709 South Nebraska, San Juan, Texas 78589

Ph/Fx Number: (956) 702-6408 Email: ronnie@cruzhogan.net

Scope of Work Description: Street Reconstruction & Drainage Improvements

Date Completed: October 2014 Total Cost: $863,094

****

3. **CONTRACTS ON HAND:** The Bidder shall provide below a list of any contracts/projects he/she currently has on hand:

Hidalgo County Pct.#1 - Sioux Road Paving & Drainage - $ 740,819

Mission CISD Tracks Improvements - $811,900

4. **SUBCONTRACTORS:** List any subcontractors you propose to use on the Hidalgo County's project that will comprise at least 20% of the total project cost. Use additional page if necessary. This information is considered preliminary and may be revised prior if bid is awarded and re-submitted during the pre-construction phase. However, it is expressly understood that the use of any subcontractor other than those listed with bid shall require written approval from Hidalgo County.

Failure to submit the information as required may result in a disqualification of your bid.

None

6. **PERFORMANCE OF WORK BY BIDDER:** Except as otherwise provided, the bidder shall perform no less than eighty percent (80%) of the work with his own organization, only twenty percent (20%) of the work may be subcontracted.

The organization of the specifications into divisions, sections, articles, etc., and the arrangement and titles of project drawings shall not control the Bidder in dividing the work among subcontractors or in establishing the extent of work to be performed by any trade.

Awarded bidder shall assign a project superintendent who is directly employed by the Bidder, that superintendent will be required to be on the job on a daily basis. No subcontractors will be allowed to act as project superintendents at any point during the construction of said project.

Bidder shall have a significant business presence with the Rio Grande Valley Area, the business must be headquartered in either Hidalgo, Cameron, or Starr County or a local office must be located in either of the three counties (Hidalgo, Cameron, Starr) with at least thirty percent (30%) of the total company workforce employed at the local office. County reserves the right to request payrolls and any necessary documentation to confirm that the local office meets these requirements.

Bidders shall carefully examine the plans, specifications and other documents, visit the site of the work, and fully inform themselves as to all conditions and matters which can affect the work or cost thereof. Should the bidder find discrepancies in, or omissions from the plans, specifications or other documents, or should he/she be in doubt as their meaning, he/she should at once notify the Engineer and obtain clarification by addendum prior to submitting any bid.

Bidder herby certifies that said company carried liability coverage and workers compensation insurance coverage that meets the requirements set forth in this Request for Bids/Proposals when performing work on this project for Hidalgo County.

Furthermore, bidder certifies that any subcontractor on the project shall provide the said company with a certificate relating that all employees of the subcontractor also are provided with workers' compensation insurance coverage. Bidder will provide copies of all of these certificates to Hidalgo County during the course of the project for all subcontractors working on the project.

All subcontractors must comply with federally determined prevailing Davis-Bacon and Related Acts wage rate.

Hidalgo County encourages the hiring of minority women subcontractors and/or suppliers whenever and wherever feasible.

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the owner in verification of the recitals comprising this Statement of Credentials.

Executed this 11th day of August, 2015.

2GS, LLC

By _____

Title Member

Subscribed and sworn to me this 12th day of August, 2015.

By: Jose L. Saenz

Notary Public in and for Hidalgo County, Texas

My commission expires Nov. 12, 2015

NOTARY PUBLIC STATE OF TEXAS
JOSE L. SAENZ
My Commission Expires
November 12, 2015

HIDALGO COUNTY PRECINCT No. 1
"Paving & Drainage Improvements to: Spanish Palms Subdivision"

BID No. -2015-256-08-12-MSS

SUBMITTAL CHECK LIST

The following list of forms must be included in the RFB response, failure to submit any of these forms may be considered non responsive.

Indicate with a check mark (✓) the Forms completed and included in response:

_____ Page 9 of Legal Notice

_____ Exhibit "C" -Acknowledgement forms (pages 3 and 4)

_____ Exhibit "D" -CIQ Form.

_____ Exhibit "E" –Proposers Affidavit

_____ Certification Regarding Debarment

_____ Vendor Bidder Application and IRS form W-9

_____ STATEMENT OF CREDENTIALS

_____ **One (1) original and three (3) copies of complete Response, including any other documentation requested in this RFB not herein listed (i.e. Bid Form, Bid Bond, Sub-Contractors List, references, etc).**

Name:_____

Signature: _____ Date: _____

Statutory Payment Bond Pursuant to Chapter 2253 Of The Texas Government Code (Public Work) (Penalty of this Bond must be 100% of Contract Amount)

Bond# 65BCSGY6865

KNOW ALL MEN BY THESE PRESENTS, That 2GS, LLC

hereinafter called the Principal), as Principal, and Hartford Fire Insurance Company

(hereinafter called the Surety), as Surety, are held and firmly bound unto

Hidalgo County

(hereinafter called the Obligee), in the amount of Two Hundred Fifty Nine Thousand Three Hundred Sixty Four and no/100*** **Dollars ($** 259,364.00 **)**

for the payment of whereof the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the 25th day of August, 2015 for

Hidalgo County Precinct No. 1- Paving & Drainage Improvements to : Spanish Palms Subdivision

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitation of said Chapter to the same extent as if it were copied at length herein.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications or drawings accompanying the same, shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder,

IN WITNESS WHEREOF, the said Principal and Surety have signed this instrument this day August 31st, 2015

of

Witness Jose Saenz

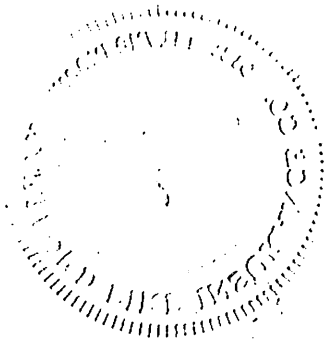
2GS, LLC

By: Humberto Garcia, Jr

Witness Phil Young

Hartford Fire Insurance Company

By: Andy Alvarez Attorney-In-Fact



Statutory Performance Bond Pursuant to Chapter 2253
Of The Texas Government Code
(Public Work)
(Penalty of this Bond must be 100% of Contract Amount) Bond# 65BCSGY6865

KNOW ALL MEN BY THESE PRESENTS, That 2GS, LLC

(hereinafter called the Principal), as Principal, and Hartford Fire Insurance Company

(hereinafter called Surety), as Surety, are held and firmly bound unto

Hidalgo County

(hereinafter called the Obligee), in the amount of Two Hundred Fifty Nine Thousand Three Hundred Sixty Four and no/100** Dollars ($ 259,364.00**)

for the payment whereof the said Principal and Surety bind themselves and heir heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the 25th day of August, 2015 for

Hidalgo County Precinct No. 1 - Paving & Drainage Improvements to : Spanish Palms Subdivision

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform the work in accordance with the plans, specifications and contract documents, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Chapter to the same extent as if it were copied at length herein.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications or drawings accompanying the same, shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed this instrument this day August 31st, 2015

of

Witness Jose Saenz

2GS, LLC

By: _____

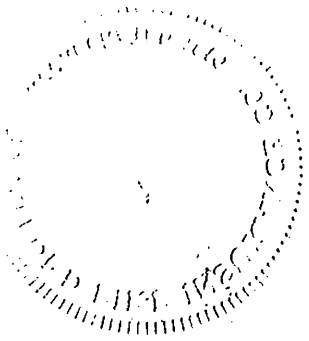
Humberto Garcia, Jr.

Witness Phil Young

Hartford Fire Insurance Company

By: _____

Andy Alvarez , Attorney-In-Fact



POWER OF ATTORNEY

Direct Inquiries/Claims to:
THE HARTFORD
Bond T-4
One Hartford Plaza
Hartford, Connecticut 06155
call: **888-266-3488** *or fax:* **860-757-5835)**

KNOW ALL PERSONS BY THESE PRESENTS THAT: **Agency Code:** 65-813646

- [X] **Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [X] **Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
- [ ] **Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of the Southeast**, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, ***up to the amount of*** Unlimited :

Andy Alvarez, Phil Young, Dewey Young of SAN JUAN, Texas

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on August 1, 2009, the Companies have caused these presents to be signed by its Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.

Wesley W. Cowling, Assistant Secretary

M. Ross Fisher, Vice President

STATE OF CONNECTICUT
COUNTY OF HARTFORD } ss. Hartford

On this 12th day of July, 2012, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.

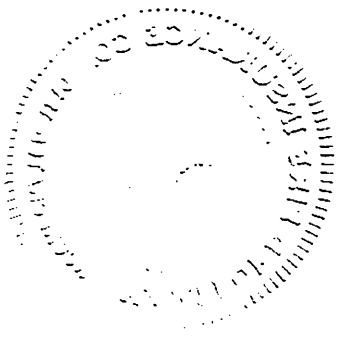
Kathleen T. Maynard
Notary Public
My Commission Expires July 31, 2016

CERTIFICATE

I, the undersigned, Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of August 31st, 2015

Signed and sealed at the City of Hartford.

Gary W. Stumper, Vice President



IMPORTANT NOTICE

To obtain information or make a complaint:

You may contact your agent.

You may call Hartford Insurance Group at the toll free telephone number for information or to make a complaint at:

1-800-392-7805

You may also write to The Hartford:

The Hartford
Hartford Financial Products
2 Park Avenue, 5th Floor
New York, New York 10016
1-212-277-0400

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance

P.O. Box 149104
Austin, TX 78714-9104
Fax Number (512) 475-1771
Web: http://www.tdi.state.tx.us
E-mail: ConsumerProtection@tdi.state.tx.us

PREMIUM OR CLAIMS DISPUTES: Should you have a dispute concerning your premium or about a claim you should contact the agent first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY: This notice is for your information only and does not become a part or condition of the attached document.

AVISO IMPORTANTE

Para obtener informacion o para someter una queja.

Puede comunicarse con su agente.

Usted puede llamar al numero de telefono gratis de The Hartford Insurance Group para informacion o para someter una queja al

1-800-392-7805

Usted tambien puede escribir a The Hartford.

The Hartford
Hartford Financial Products
2 Park Avenue, 5th Floor
New York, New York 10016
1-212-277-0400

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de compañías, coberturas, derechos o quejas al:

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas

P.O. Box 149104
Austin, TX 78714-9104
Fax Number (512) 475-1771
Web: http://www.tdi.state.tx.us
E-mail: ConsumerProtection@tdi.state.tx.us

DISPUTAS SOBRE PRIMAS O RECLAMOS: Si tiene una disputa concerniente a su prima o a un reclamo, debe comunicarse con su agente primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA: Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

This document has been approved and endorsed by

The Associated General Contractors of America

Construction Specifications Institute

EJCDC No. 1910-8 (1996 Edition)

Copyright ©1996

National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Consulting Engineers Council
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers
345 East 47th Street, New York, NY 10017

TABLE OF CONTENTS

Page

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY 6
1.01 *Defined Terms* 6
1.02 *Terminology* 8

ARTICLE 2 - PRELIMINARY MATTERS 9
2.01 *Delivery of Bonds* 9
2.02 *Copies of Documents* 9
2.03 *Commencement of Contract Times; Notice to Proceed* 9
2.04 *Starting the Work* 9
2.05 *Before Starting Construction* 9
2.06 *Preconstruction Conference* 10
2.07 *Initial Acceptance of Schedules* 10

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE 10
3.01 *Intent* 10
3.02 *Reference Standards* 10
3.03 *Reporting and Resolving Discrepancies* 10
3.04 *Amending and Supplementing Contract Documents* 11
3.05 *Reuse of Documents* 11

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS 11
4.01 *Availability of Lands* 11
4.02 *Subsurface and Physical Conditions* 12
4.03 *Differing Subsurface or Physical Conditions* 12
4.04 *Underground Facilities* 13
4.05 *Reference Points* 13
4.06 *Hazardous Environmental Condition at Site* 14

ARTICLE 5 - BONDS AND INSURANCE 15
5.01 *Performance, Payment, and Other Bonds* 15
5.02 *Licensed Sureties and Insurers* 15
5.03 *Certificates of Insurance* 15
5.04 *CONTRACTOR's Liability Insurance* 15
5.05 *OWNER's Liability Insurance* 16
5.06 *Property Insurance* 16
5.07 *Waiver of Rights* 17
5.08 *Receipt and Application of Insurance Proceeds* 18
5.09 *Acceptance of Bonds and Insurance; Option to Replace* 18
5.10 *Partial Utilization, Acknowledgment of Property Insurer* 18

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES 18
6.01 *Supervision and Superintendence* 18
6.02 *Labor; Working Hours* 19
6.03 *Services, Materials, and Equipment* 19
6.04 *Progress Schedule* 19
6.05 *Substitutes and "Or-Equals"* 19
6.06 Concerning Subcontractors, Suppliers, and Others *21*

6.07 *Patent Fees and Royalties* 21
6.08 *Permits* 22
6.09 *Laws and Regulations* 22
6.10 *Taxes* 22
6.11 *Use of Site and Other Areas* 22
6.12 *Record Documents* 22
6.13 *Safety and Protection* 23
6.14 *Safety Representative* 23
6.15 *Hazard Communication Programs* 23
6.16 *Emergencies* 23
6.17 *Shop Drawings and Samples* 24
6.18 *Continuing the Work* 25
6.19 *CONTRACTOR's General Warranty and Guarantee* 25
6.20 *Indemnification* 25

ARTICLE 7 - OTHER WORK 26
7.01 *Related Work at Site* 26
7.02 *Coordination* 26

ARTICLE 8 - OWNER'S RESPONSIBILITIES 27
8.01 *Communications to Contractor* 27
8.02 *Replacement of ENGINEER* 27
8.03 *Furnish Data* 27
8.04 *Pay Promptly When Due* 27
8.05 *Lands and Easements; Reports and Tests* 27
8.06 *Insurance* 27
8.07 *Change Orders* 27
8.08 *Inspections, Tests, and Approvals* 27
8.09 *Limitations on OWNER's Responsibilities* 27
8.10 *Undisclosed Hazardous Environmental Condition* 27
8.11 *Evidence of Financial Arrangements* 27

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION 27
9.01 *OWNER'S Representative* 27
9.02 *Visits to Site* 28
9.03 *Project Representative* 28
9.04 *Clarifications and Interpretations* 28
9.05 *Authorized Variations in Work* 28
9.06 *Rejecting Defective Work* 29
9.07 *Shop Drawings, Change Orders and Payments* 29
9.08 *Determinations for Unit Price Work* 28
9.09 *Decisions on Requirements of Contract Documents and Acceptability of Work* 28
9.10 *Limitations on ENGINEER's Authority and Responsibilities* 28

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS 29
10.01 *Authorized Changes in the Work* 29
10.02 *Unauthorized Changes in the Work* 29
10.03 *Execution of Change Orders* 30
10.04 *Notification to Surety* 30
10.05 *Claims and Disputes* 30

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK 30
11.01 *Cost of the Work* 30

11.02 *Cash Allowances* 32
11.03 *Unit Price Work* 33

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES 33
12.01 *Change of Contract Price* 33
12.02 *Change of Contract Times* 34
12.03 *Delays Beyond CONTRACTOR's Control* 34
12.04 *Delays Within CONTRACTOR's Control* 34
1205 Delays Beyond OWNER's and CONTRACTOR'S Control *34*
12.06 *Delay Damages* 34

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK 34
13.01 *Notice of Defects* 34
13.02 *Access to Work* 34
13.03 *Tests and Inspections* 35
13.04 *Uncovering Work* 35
13.05 *OWNER May Stop the Work* 35
13.06 *Correction or Removal of Defective Work* 36
13.07 *Correction Period* 36
13.08 *Acceptance of Defective Work* 36
13.09 *OWNER May Correct Defective Work* 36

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION 37
14.01 *Schedule of Values* 37
14.02 *Progress Payments* 37
14.03 *CONTRACTOR's Warranty of Title* 38
14.04 *Substantial Completion* 39
14.05 *Partial Utilization* 39
14.06 *Final Inspection* 39
14.07 *Final Payment* 40
14.08 *Final Completion Delayed* 40
14.09 *Waiver of Claims* 41

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION 41
15.01 OWNER May Suspend Work 41
15.02 *OWNER May Terminate for Cause* 41
15.03 *OWNER May Terminate For Convenience* 41
15.04 *CONTRACTOR May Stop Work or Terminate* 42

ARTICLE 16 - DISPUTE RESOLUTION 42
16.01 *Methods and Procedures* 42

ARTICLE 17 - MISCELLANEOUS 43
17.01 *Giving Notice* 43
17.02 *Computation of Times* 43
17.03 *Cumulative Remedies* 43
17.04 *Survival of Obligations* 43
17.05 *Controlling Law* 43

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

3. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

9. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

13. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

15. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

16. *Cost of the Work*--See paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *ENGINEER*--The individual or entity named as such in the Agreement.

20. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

34. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

40. *Site*--Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

43. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

46. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

47. *Unit Price Work*--Work to be paid for on the basis of unit prices.

48. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

49. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 *Terminology*

A. *Intent of Certain Terms or Adjectives*

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. *Day*

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. *Defective*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

D. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 *Delivery of Bonds*

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02* *Copies of Documents*

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times com-

mence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

*See Supplementary Conditions

2.05* *Before Starting Construction*

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and

3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

* C. *Evidence of Insurance:* Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.

2.06 *Preconstruction Conference*

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

*See Supplementary Conditions

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01* *Intent*

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

3.02 *Reference Standards*

A. *Standards, Specifications, Codes, Laws, and Regulations*

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER's Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or

*See Supplementary Conditions

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

3.05 *Reuse of Documents*

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of the Site with which CONTRACTOR must comply in performing the Work. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER's furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02* *Subsurface and Physical Conditions*

A.* *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, includ-

ing, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

*See Supplementary Conditions

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be

made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price of Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

4.05* *Reference Points*

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto; or

*See Supplementary Conditions

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

F. If after receipt of such written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or

Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.E shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.F shall obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

*See Supplementary Conditions

ARTICLE 5 - BONDS AND INSURANCE

5.01* *Performance, Payment, and Other Bonds*

A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.

B.* All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.

5.04* *CONTRACTOR's Liability Insurance*

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to

perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

*See Supplementary Conditions

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

5.05 *OWNER's Liability Insurance*

A.* In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

5.06* *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property

insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

*See Supplementary Conditions

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B.* OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C.* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

D.* OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interests of CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E.* If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.07 *Waiver of Rights*

A.* OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other

individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused.

None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

*See Supplementary Conditions

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of, or resulting from fire or other peril whether or not insured by OWNER; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

5.08* *Receipt and Application of Insurance Proceeds*

A.* Any insured loss under the policies of insurance required by paragraph 5.06 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.08.B. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

B.* OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

5.09* *Acceptance of Bonds and Insurance; Option to Replace*

A.* If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the

certificates (or other evidence requested) required by paragraph 2.05.C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with

*See Supplementary Conditions

the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences,
and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 *Labor; Working Hours*

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the

Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly

run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.

1. *"Or-Equal" Items:* If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify

that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

C. *Engineer's Evaluation:* ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. *Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

E. *ENGINEER's Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

F. *CONTRACTOR's Expense:* CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement

for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 *Patent Fees and Royalties*

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for

the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

6.09 *Laws and Regulations*

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05.

6.10* *Taxes*

A. CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11* *Use of Site and Other Areas*

A.* *Limitation on Use of Site and Other Areas*

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations,

*See Supplementary Conditions

and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, employees, agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

6.13 *Safety and Protection*

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. CONTRACTOR shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17* *Shop Drawings and Samples*

A.* CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

B.* CONTRACTOR shall also submit six (6) Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

D. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or

*See Supplementary Conditions

Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

E. *ENGINEER's Review*

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals

will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. ENGINEER's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

F. *Resubmittal Procedures*

1. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.18 *Continuing the Work*

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 *CONTRACTOR's General Warranty and Guarantee*

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or

2. normal wear and tear under normal usage.

B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

1. observations by ENGINEER;

2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;

4. use or occupancy of the Work or any part thereof by OWNER;

5. any acceptance by OWNER or any failure to do so;

6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;

7. any inspection, test, or approval by others; or

8. any correction of defective Work by OWNER.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and

2. is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

ARTICLE 7 - OTHER WORK

7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and

2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of

such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.02 *Replacement of ENGINEER*

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.03 *Furnish Data*

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

8.04 *Pay Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

*See Supplementary Conditions

8.06* *Insurance*

A.* OWNER's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 *Limitations on OWNER's Responsibilities*

A. The OWNER shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *OWNER'S Representative*

A. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed without written consent of OWNER and ENGINEER.

9.02 *Visits to Site*

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

9.03* *Project Representative*

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee,

*See Supplementary Conditions

the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Clarifications and Interpretations*

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Docu-

ments. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 *Authorized Variations in Work*

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 *Rejecting Defective Work*

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.07 *Shop Drawings, Change Orders and Payments*

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

9.08 *Determinations for Unit Price Work*

A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

9.09 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

*See Supplementary Conditions

9.10 *Limitations on ENGINEER's Authority and Responsibilities*

A. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such

authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by ENGINEER shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants. See Article 18.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in paragraph 3.04, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

10.05 *Claims and Disputes*

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work

shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

C. *CONTRACTOR's Fee:* When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.02 *Cash Allowances*

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

B. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of

Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

B. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01* *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B.* The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR's Fee:* The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;

b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

*See Supplementary Conditions

d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

12.03 *Delays Beyond CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

12.04 *Delays Within CONTRACTOR's Control*

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06 *Delay Damages*

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or

2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility

owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02* *Access to Work*

A. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's Site safety procedures and programs so that they may comply therewith as applicable.

13.03* *Tests and Inspections*

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B.* OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.

D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in

question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

*See Supplementary Conditions

13.05 *OWNER May Stop the Work*

A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 *OWNER May Correct Defective Work*

A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The schedule of values established as provided in paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A.* *Applications for Payments*

1. At least 20 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to pro-gress payments will be as stipulated in the Agreement.

*See Supplementary Conditions

B. *Review of Applications*

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Comple tion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties

that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

5. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Written Amendment or Change Orders;

c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or

d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

C. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

D. *Reduction in Payment*

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

a. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;

c. there are other items entitling OWNER to a set-off against the amount recommended; or

d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 *CONTRACTOR's Warranty of Title*

A. CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment*

1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

B. *Review of Application and Acceptance*

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application for Payment to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due*

1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

14.08 *Final Completion Delayed*

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not

fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 OWNER May Suspend Work

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.

15.02 *OWNER May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

C. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.03 *OWNER May Terminate For Convenience*

A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. for all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. for reasonable expenses directly attributable to termination.

B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *CONTRACTOR May Stop Work or Terminate*

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION*

16.01 *Methods and Procedures*

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17 - MISCELLANEOUS*

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to

exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

SUPPLEMENTAL GENERAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 Edition) and other provisions of the Contract Documents as indicated below. All provisions, which are not so amended or supplemental, remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

SC-6.10 Delete paragraph 6.10 in its entirely and insert the following in its place:

The owner qualifies for the state and local tax exemption in the purchase of certain materials and equipment the Contractor shall utilize the form provided herewith in exhibit "D".

SC-11.01 Delete paragraph 11.01 in its entirety.

SC-11.02 Delete paragraph 11.02 in its entirety.

SC-12.01B.25 & B.3. Delete paragraph 12.01B.2 & B.3 in its entirety.

SC-12.01.C.2 Delete paragraph 12.01.C.2 in its entirety.

SC Article 14.02 C.1 Replace **"Ten days"** with **"Thirty days"** to read as follows: Thirty days after presentation of the Application for Payment to OWNER with ENGINEER'S recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER TO CONTRACTOR.

SC Article 16 Add the following language at the end of the paragraph of Article 16:

There are no dispute resolution methods and procedures set forth in the Supplemental Conditions:

GENERAL PREVAILING WAGE LEGAL REQUIREMENTS

The Contractor's attention is called to Texas Government Code Chapter 2258, which must be complied with attached herewith as Exhibit "C"

General Decision Number: TX150008 01/02/2015 TX8

Superseded General Decision Number: TX20140008

State: Texas

Construction Types: Heavy and Highway

Counties: Cameron, Hidalgo and Webb Counties in Texas.

HEAVY & HIGHWAY CONSTRUCTION PROJECTS

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of $10.10 for 2015 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/02/2015

* SUTX2011-003 08/02/2011

	Rates	Fringes
CEMENT MASON/CONCRETE		
FINISHER (Paving & Structures)	$ 12.46	
FORM BUILDER/FORM SETTER		
(Structures)	$ 12.30	
FORM SETTER (Paving & Curb)	$ 12.16	
LABORER		
Asphalt Raker	$ 10.61	
Flagger	$ 9.10	
Laborer, Common	$ 9.86	
Laborer, Utility	$ 11.53	
Pipelayer	$ 11.87	
Work Zone Barricade Servicer	$ 12.88	
POWER EQUIPMENT OPERATOR:		
Asphalt Distributor	$ 13.48	
Asphalt Paving Machine	$ 12.25	
Broom or Sweeper	$ 10.33	
Crane, Lattice Boom 80 Tons or Less	$ 14.39	
Crawler Tractor	$ 16.63	

Excavator, 50,000 lbs or less.....$ 12.56

Excavator, over 50,000 lbs..$ 15.23

Foundation Drill, Truck Mounted.....$ 16.86

Front End Loader Operator, Over 3 CY.....$ 13.69

Front End Loader, 3 CY or less.....$ 13.49

Loader/Backhoe.....$ 12.77

Mechanic.....$ 15.47

Milling Machine.....$ 14.64

Motor Grader Operator, Rough.....$ 14.62

Motor Grader, Fine Grade....$ 16.52

Scraper.....$ 11.07

Servicer.....$ 12.34

Steel Worker (Reinforcing).....$ 14.07

TRUCK DRIVER

Lowboy-Float.....$ 13.63

Single Axle.....$ 10.82

Single or Tandem Axle Dump..$ 14.53

Tandem Axle Tractor with Semi Trailer.....$ 12.12

WELDER.....$ 14.02

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

==========

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates

the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

==========

END OF GENERAL DECISION

Title 29 – LABOR

Subtitle A – Office of The Secretary of Labor

PART 3 - CONTRACTORS AND SUBCONTRACTORS ON PUBLIC BUILDING OR PUBLIC WORK FINANCED IN WHOLE OR IN PART BY LOANS OR GRANTS FROM THE UNITED STATES

Sect. Name
3.1 Purpose and scope.
3.2 Definitions.
3.3 Weekly statement with respect to payment of wages.
3.4 Submission of weekly statements and the preservation and inspection of weekly payroll records.
3.5 Payroll deductions permissible without application to or approval of the Secretary of Labor.
3.6 Payroll deductions permissible with the approval of the Secretary of Labor.
3.7 Applications for the approval of the Secretary of Labor.
3.8 Action by the Secretary of Labor upon applications.
3.9 Prohibited payroll deductions.
3.10 Methods of payment of wages.
3.11 Regulations part of contract.

Authority: R.S. 161, sec. 2, 48 Stat. 848; Reorg. Plan No. 14, of 1950, 64 Stat. 1267; 5 U.S.C. 301; 40 U.S.C. 276c.
Source: 29 FR 97, Jan. 4, 1964, unless otherwise noted.

29 CFR 3.1 - Purpose and scope.

This part prescribes ``anti-kickback'' regulations under section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c), popularly known as the Copeland Act. This part applies to any contract which is subject to Federal wage standards and which is for the construction, prosecution, completion, or repair of public buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States. The part is intended to aid in the enforcement of the minimum wage provisions of the Davis-Bacon Act and the various statutes dealing with federally assisted construction that contain similar minimum wage provisions, including those provisions which are not subject to Reorganization Plan No. 14 (e.g., the College Housing Act of 1950, the Federal Water Pollution Control Act, and the Housing Act of 1959), and in the enforcement of the overtime provisions of the Contract Work Hours Standards Act whenever they are applicable to construction work. The part details the obligation of contractors and subcontractors relative to the weekly submission of statements regarding the wages paid on work covered thereby; sets forth the circumstances and procedures governing the making of payroll deductions from the wages of those employed on such work; and delineates the methods of payment permissible on such work.

29 CFR 3.2 - Definitions.

As used in the regulations in this part:
(a) The terms building or work generally include construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work. The terms include, without limitation, buildings, structures, and improvements of all types, such as bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, powerlines, pumping stations, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals; dredging, shoring, scaffolding, drilling, blasting, excavating, clearing, and landscaping. Unless conducted in connection with and at the site of such a building or work as is described in the foregoing sentence, the manufacture or furnishing of materials, articles, supplies, or equipment (whether or not a Federal or State agency acquires title to such materials, articles, supplies, or equipment during the course of the manufacture or furnishing, or owns the materials from which they are manufactured or furnished) is not a building or work within the meaning of the regulations in this part.

(b) The terms construction, prosecution, completion, or repair mean all types of work done on a particular building or work at the site thereof, including, without limitation, altering, remodeling, painting and decorating, the transporting of materials and supplies to or from the building or work by the employees of the construction contractor or construction subcontractor, and the manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work, by persons employed at the site by the contractor or subcontractor.
(c) The terms public building or public work include building or work for whose construction, prosecution, completion, or repair, as defined above, a Federal agency is a contracting party, regardless of whether title thereof is in a Federal agency.
(d) The term building or work financed in whole or in part by loans or grants from the United States includes building or work for whose construction, prosecution, completion, or repair, as defined above, payment or part payment is made directly or indirectly from funds provided by loans or grants by a Federal agency. The term includes building or work for which the Federal assistance granted is in the form of loan guarantees or insurance.
(e) Every person paid by a contractor or subcontractor in any manner for his labor in the construction, prosecution, completion, or repair of a public building or public work or building or work financed in whole or in part by loans or grants from the United States is employed and receiving wages, regardless of any contractual relationship alleged to exist between him and the real employer.
(f) The term any affiliated person includes a spouse, child, parent, or other close relative of the contractor or subcontractor; a partner or officer of the contractor or subcontractor; a corporation closely connected with the contractor or subcontractor as parent, subsidiary, or otherwise, and an officer or agent of such corporation.
(g) The term Federal agency means the United States, the District of Columbia, and all executive departments, independent establishments, administrative agencies, and instrumentalities of the United States and of the District of Columbia, including corporations, all or substantially all of the stock of which is beneficially owned by the United States, by the District of Columbia, or any of the foregoing departments, establishments, agencies, and instrumentalities.

[29 FR 97, Jan. 4, 1964, as amended at 38 FR 32575, Nov. 27, 1973]

29 CFR 3.3 - Weekly statement with respect to payment of wages.

(a) As used in this section, the term employee shall not apply to persons in classifications higher than that of laborer or mechanic and those who are the immediate supervisors of such employees.
(b) Each contractor or subcontractor engaged in the construction, prosecution, completion, or repair of any public building or public work, or building or work financed in whole or in part by loans or grants from the United States, shall furnish each week a statement with respect to the wages paid each of its employees engaged on work covered by this part 3 and part 5 of this chapter during the preceding weekly payroll period. This statement shall be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractor who supervises the payment of wages, and shall be on form WH 348, ``Statement of Compliance", or on an identical form on the back of WH 347, ``Payroll (For Contractors Optional Use)" or on any form with identical wording. Sample copies of WH 347 and WH 348 may be obtained from the Government contracting or sponsoring agency, and copies of these forms may be purchased at the Government Printing Office.
(c) The requirements of this section shall not apply to any contract of $2,000 or less.
(d) Upon a written finding by the head of a Federal agency, the Secretary of Labor may provide reasonable limitations, variations, tolerances, and exemptions from the requirements of this section subject to such conditions as the Secretary of Labor may specify.

[29 FR 97, Jan. 4, 1964, as amended at 33 FR 10186, July 17, 1968; 47 FR 23679, May 28, 1982]

29 CFR 3.4 - Submission of weekly statements and the preservation and inspection of weekly payroll records.

(a) Each weekly statement required under Sec. 3.3 shall be delivered by the contractor or subcontractor, within seven days after the regular payment date of the payroll period, to a representative of a Federal or State agency in charge at the site of the building or work, or, if there is no representative of a Federal or State agency at the site of the building or work, the statement shall be mailed by the contractor or subcontractor, within such time, to a Federal or State agency contracting for or financing the building or work. After such examination and check as may be made, such statement, or a copy thereof, shall be kept available, or shall be transmitted together with a report of any violation, in accordance with applicable procedures prescribed by the United States Department of Labor.
(b) Each contractor or subcontractor shall preserve his weekly payroll records for a period of three years from date of completion of the contract. The payroll records shall set out accurately and completely the name and address of each laborer and mechanic, his correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Such payroll records shall be made available at all times for inspection by the contracting
officer or his authorized representative, and by authorized representatives of the Department of Labor.
(Reporting and recordkeeping requirements in paragraph (b) have been approved by the Office of Management and Budget under control number 1215-0017)

[29 FR 97, Jan. 4, 1964, as amended at 47 FR 145, Jan. 5, 1982]

29 CFR 3.5 - Payroll deductions permissible without application to or approval of the Secretary of Labor.

Deductions made under the circumstances or in the situations described in the paragraphs of this section may be made without application to and approval of the Secretary of Labor:

(a) Any deduction made in compliance with the requirements of Federal, State, or local law, such as Federal or State withholding income taxes and Federal social security taxes.
(b) Any deduction of sums previously paid to the employee as a bona fide prepayment of wages when such prepayment is made without discount or interest. A bona fide prepayment of wages is considered to have been made only when cash or its equivalent has been advanced to the person employed in such manner as to give him complete freedom of disposition of the advanced funds.
(c) Any deduction of amounts required by court process to be paid to another, unless the deduction is in favor of the contractor, subcontractor, or any affiliated person, or when collusion or collaboration exists.
(d) Any deduction constituting a contribution on behalf of the person employed to funds established by the employer or representatives of employees, or both, for the purpose of providing either from principal or income, or both, medical or hospital care, pensions or annuities on retirement, death benefits, compensation for injuries, illness, accidents, sickness, or disability, or for insurance to provide any of the foregoing, or unemployment benefits, vacation pay, savings accounts, or similar payments for the benefit of employees, their families and dependents: Provided, however, That the following standards are met:

(1) The deduction is not otherwise prohibited by law;
(2) It is either:
(i) Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of or for the continuation of employment, or
(ii) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees;
(3) No profit or other benefit is otherwise obtained, directly or indirectly, by the contractor or subcontractor or any affiliated person in the form of commission, dividend, or otherwise; and
(4) The deductions shall serve the convenience and interest of the employee.

(e) Any deduction contributing toward the purchase of United States Defense Stamps and Bonds when voluntarily authorized by the employee.

(f) Any deduction requested by the employee to enable him to repay loans to or to purchase shares in credit unions organized and operated in accordance with Federal and State credit union statutes.
(g) Any deduction voluntarily authorized by the employee for the making of contributions to governmental or quasi-governmental agencies, such as the American Red Cross.
(h) Any deduction voluntarily authorized by the employee for the making of contributions to Community Chests, United Givers Funds, and similar charitable organizations.
(i) Any deductions to pay regular union initiation fees and membership dues, not including fines or special assessments: Provided, however, That a collective bargaining agreement between the contractor or subcontractor and representatives of its employees provides for such deductions and the deductions are not otherwise prohibited by law.
(j) Any deduction not more than for the ``reasonable cost" of board, lodging, or other facilities meeting the requirements of section 3(m) of the Fair Labor Standards Act of 1938, as amended, and part 531 of this title. When such a deduction is made the additional records required under Sec. 516.25(a) of this title shall be kept.
(k) Any deduction for the cost of safety equipment of nominal value purchased by the employee as his own property for his personal protection in his work, such as safety shoes, safety glasses, safety gloves, and hard hats, if such equipment is not required by law to be furnished by the employer, if such deduction is not violative of the Fair Labor Standards Act or prohibited by other law, if the cost on which the deduction is based does not exceed the actual cost to the employer where the equipment is purchased from him and does not include any direct or indirect monetary return to the employer where the equipment is purchased from a third person, and if the deduction is either

(1) Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance; or
(2) Provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees.

[29 FR 97, Jan. 4, 1964, as amended at 36 FR 9770, May 28, 1971]

29 CFR 3.6 - Payroll deductions permissible with the approval of the Secretary of Labor.

Any contractor or subcontractor may apply to the Secretary of Labor for permission to make any deduction not permitted under Sec. 3.5. The Secretary may grant permission whenever he finds that:

(a) The contractor, subcontractor, or any affiliated person does not make a profit or benefit directly or indirectly from the deduction either in the form of a commission, dividend, or otherwise;
(b) The deduction is not otherwise prohibited by law;
(c) The deduction is either (1) voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance, or (2) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees; and
(d) The deduction serves the convenience and interest of the employee.

29 CFR 3.7 - Applications for the approval of the Secretary of Labor.

Any application for the making of payroll deductions under Sec. 3.6 shall comply with the requirements prescribed in the following paragraphs of this section:

(a) The application shall be in writing and shall be addressed to the Secretary of Labor.
(b) The application need not identify the contract or contracts under which the work in question is to be performed. Permission will be given for deductions on all current and future contracts of the applicant for a period of 1 year. A renewal of permission to make such payroll deduction will be granted upon the submission of an application which makes reference to the original application, recites the date of the Secretary of Labor's approval of such deductions, states affirmatively that there is continued compliance with the standards set forth in the provisions of Sec. 3.6, and specifies any conditions which have changed in regard to the payroll deductions.

(c) The application shall state affirmatively that there is compliance with the standards set forth in the provisions of Sec. 3.6. The affirmation shall be accompanied by a full statement of the facts indicating such compliance.
(d) The application shall include a description of the proposed deduction, the purpose to be served thereby, and the classes of laborers or mechanics from whose wages the proposed deduction would be made.
(e) The application shall state the name and business of any third person to whom any funds obtained from the proposed deductions are to be transmitted and the affiliation of such person, if any, with the applicant.

[29 FR 97, Jan. 4, 1964, as amended at 36 FR 9771, May 28, 1971]

29 CFR 3.8 - Action by the Secretary of Labor upon applications.

The Secretary of Labor shall decide whether or not the requested deduction is permissible under provisions of Sec. 3.6; and shall notify the applicant in writing of his decision.

29 CFR 3.9 - Prohibited payroll deductions.

Deductions not elsewhere provided for by this part and which are not found to be permissible under Sec. 3.6 are prohibited.

29 CFR 3.10 - Methods of payment of wages.

The payment of wages shall be by cash, negotiable instruments payable on demand, or the additional forms of compensation for which deductions are permissible under this part. No other methods of payment shall be recognized on work subject to the Copeland Act.

29 CFR 3.11 - Regulations part of contract.

All contracts made with respect to the construction, prosecution, completion, or repair of any public building or public work or building or work financed in whole or in part by loans or grants from the United States covered by the regulations in this part shall expressly bind the contractor or subcontractor to comply with such of the regulations in this part as may be applicable. In this regard, see Sec. 5.5(a) of this subtitle.

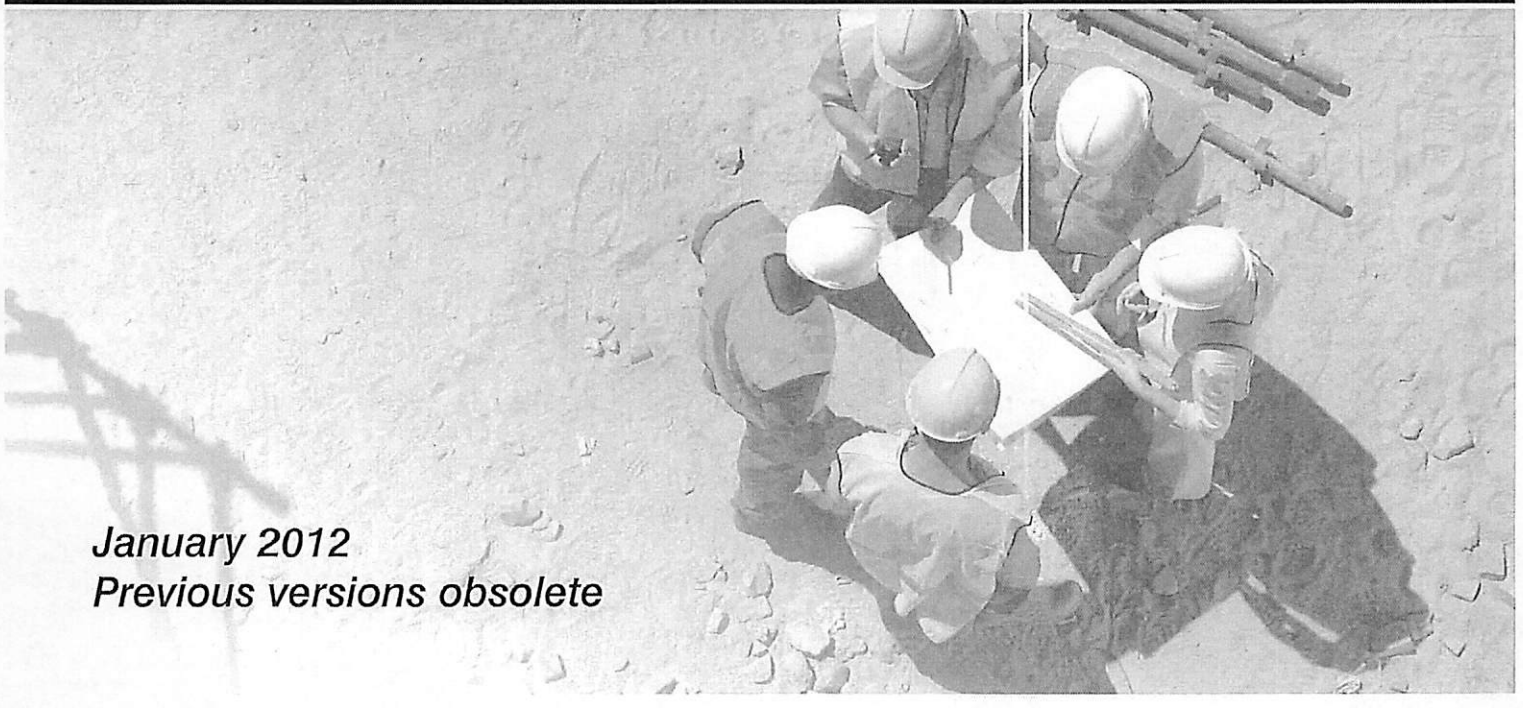
U.S. Department of Housing
and Urban Development

Labor Relations Desk Guide
LR01.DG



DAVIS-BACON
LABOR STANDARDS

A Contractor's Guide
to Prevailing Wage Requirements
for Federally-Assisted Construction Projects



January 2012
Previous versions obsolete

INTRODUCTION

This Guide has been prepared for you as a contractor performing work on construction projects that are assisted by the Department of Housing and Urban Development and subject to Davis-Bacon prevailing wage requirements. This Guide does not address contractor requirements involved in direct Federal contracting where HUD or another Federal agency enters into a procurement contract. In this latter case, the Federal Acquisition Regulations (FAR) are applicable. While the guidance contained in this Guide is generally applicable to any Davis-Bacon covered project, specific questions pertaining to direct Federal contracts should be addressed to the Contracting Officer who signed the contract for the Federal agency.

Our objective here is to provide you with a guide which is simple and non-bureaucratic yet comprehensive and which will help you better understand and comply with Davis-Bacon labor standards. HUD's Office of Labor Relations worked closely with the Department of Labor's Wage and Hour Division to make sure that the labor standards provisions in your contract and the specifics of complying with them represent the latest information. It is the Department of Labor which has general administrative oversight of all Federal contracting agencies, such as HUD, which administer the day-to-day responsibilities of enforcing Davis-Bacon provisions in construction contracts they either fund or assist in funding.

There are three chapters in this Guide. The first chapter offers a brief description of the laws and regulations associated with Federal labor standards administration and enforcement and discusses both what's in your contract that requires Davis-Bacon compliance and your responsibilities. The second chapter deals with labor standards and payroll reporting requirements. The third chapter discusses what can happen in the event there is a dispute about the wage rates that should be (or have been) paid and any back wages that may be due.

Finally, not all HUD construction projects are covered by Davis-Bacon wage rates. For the purpose of this Guide, we are assuming that a determination has already been made that Davis-Bacon wage rates are applicable. Should you wish assistance in determining whether Davis-Bacon wage rates apply to a particular project or if you need other related technical assistance, please consult with the HUD Labor Relations Field staff for your area. If you don't know which staff to contact, a list of Labor Relations field offices and their geographic areas and telephone numbers can be found on HUD's Home Page at the address below.

Visit the Office of Labor Relations on-line:

http://www.hud.gov/offices/olr

Obtain additional copies of this Guide and other publications at our website or by telephone from HUD's Customer Service Center at (800)767-7468.

TABLE OF CONTENTS

INTRODUCTION i

CHAPTER 1 LAWS, REGULATIONS, CONTRACTS AND RESPONSIBILITIES 1-1

1-1 DAVIS-BACON AND OTHER LABOR LAWS 1-1
a. The Davis-Bacon Act (DBA) 1-1
b. The Contract Work Hours and Safety Standards Act (CWHSSA) 1-1
c. The Copeland Act (Anti-Kickback Act) 1-2
d. The Fair Labor Standards Act (FLSA) 1-2
1-2 DAVIS-BACON REGULATIONS 1-2
1-3 CONSTRUCTION CONTRACT PROVISIONS 1-2
1-4 RESPONSIBILITY OF THE PRINCIPAL CONTRACTOR 1-3
1-5 RESPONSIBILITY OF THE CONTRACT ADMINISTRATOR 1-4

CHAPTER 2 HOW TO COMPLY WITH LABOR STANDARDS AND PAYROLL REPORTING REQUIREMENTS 2-1

SECTION - I THE BASICS

2-1 THE WAGE DECISION 2-1
a. The work classifications and wage rates 2-1
b. Posting the wage decision 2-2
2-2 ADDITIONAL "TRADE" CLASSIFICATIONS AND WAGE RATES 2-2
a. Additional classification rules 2-2
b. Making the request 2-3
c. HUD review 2-3
d. DOL decision 2-3
2-3 CERTIFIED PAYROLL REPORTS 2-4
a. Payroll formats 2-4
b. Payroll certifications 2-4
c. "No work" payrolls 2-4
d. Payroll review and submission 2-5
e. Payroll retention 2-5
f. Payroll inspection 2-5
2-4 DAVIS-BACON DEFINITIONS 2-5
a. Laborer or mechanic 2-5
b. Employee 2-6
c. Apprentices and trainees 2-6
d. Prevailing wages or wage rates 2-7
e. Fringe benefits 2-7
f. Overtime 2-7
g. Deductions 2-8
h. Proper designation of trade 2-8
i. Site of work 2-8

SECTION - II REPORTING REQUIREMENT

2-5 COMPLETING A PAYROLL REPORT 2-9
a. Project and contractor/subcontractor information 2-9
b. Employee information 2-9
c. Work classification 2-9
d. Hours worked 2-10
e. Rate of pay 2-10
f. Gross wages earned 2-10
g. Deductions 2-11
h. Net pay 2-11
i. Statement of compliance 2-11
j. Signature 2-11

SECTION III - PAYROLL REVIEWS AND CORRECTIONS

2-6 COMPLIANCE REVIEWS 2-12
a. On-site interviews 2-12
b. Project payroll reviews 2-12
2-7 TYPICAL PAYROLL ERRORS AND REQUIRED CORRECTIONS 2-12
a. Inadequate payroll information 2-12
b. Missing identification numbers 2-12
c. Incomplete payrolls 2-13
d. Classifications 2-13
e. Wage Rates 2-13
f. Apprentices and trainees 2-13
g. Overtime 2-13
h. Computations 2-13
i. Deductions 2-13
j. Fringe benefits 2-14
k. Signature 2-14
l. On-site interview comparisons 2-14
m. Correction certified payroll 2-14
2-8 RESTITUTION FOR UNDERPAYMENT OF WAGES 2-14
a. Notification 2-14
b. Computing wage restitution 2-15
c. Correction certified payrolls 2-15
d. Review of correction CPR 2-15
e. Unfound workers 2-15

CHAPTER 3 LABOR STANDARDS DISPUTES, ADMINISTRATIVE REVIEWS, WITHHOLDING, DEPOSITS AND ESCROW ACCOUNTS, AND SANCTIONS 3-1

3-1 INTRODUCTION 3-1
3-2 ADMINISTRATIVE REVIEW ON LABOR STANDARDS DISPUTES 3-1
a. Additional classifications and wage rates 3-1
b. Findings of underpayment 3-2
3-3 WITHHOLDING 3-2
3-4 DEPOSITS AND ESCROWS 3-3
3-5 ADMINISTRATIVE SANCTIONS 3-4
a. DOL debarment 3-4
b. HUD sanctions 3-4
3-6 FALSIFICATION OF CERTIFIED PAYROLL REPORTS 3-5

APPENDICIES

ACRONYMS AND SYMBOLS A-1
DAVIS-BACON - RELATED WEB SITES* A-2
HUD-4720, Project Wage Rate Sheet A-3
WH-347, Payroll Form/Statement of Compliance A-4

CHAPTER 3 LABOR STANDARDS DISPUTES, ADMINISTRATIVE REVIEWS, WITHHOLDING, DEPOSITS AND ESCROW ACCOUNTS, AND SANCTIONS 3-1

3-1 INTRODUCTION 3-1
3-2 ADMINISTRATIVE REVIEW ON LABOR STANDARDS DISPUTES 3-1
a. Additional classifications and wage rates 3-1
b. Findings of underpayment 3-2
3-3 WITHHOLDING 3-2
3-4 DEPOSITS AND ESCROWS 3-3
3-5 ADMINISTRATIVE SANCTIONS 3-4
a. DOL debarment 3-4
b. HUD sanctions 3-4
3-6 FALSIFICATION OF CERTIFIED PAYROLL REPORTS 3-5

APPENDICIES

ACRONYMS AND SYMBOLS A-1
DAVIS-BACON - RELATED WEB SITES* A-2
HUD-4720, Project Wage Rate Sheet A-3
WH-347, Payroll Form/Statement of Compliance A-4

CHAPTER 1 LAWS, REGULATIONS, CONTRACTS AND RESPONSIBILITIES

The following paragraphs describe what the labor standards laws and regulations actually say and what they mean to you on HUD projects:

1-1 DAVIS-BACON AND OTHER LABOR LAWS.

a. **The Davis-Bacon Act (DBA).** The Davis-Bacon Act requires the payment of prevailing wage rates (which are determined by the U.S. Department of Labor) to all laborers and mechanics on Federal government and District of Columbia construction projects in excess of $2,000. Construction includes alteration and/or repair, including painting and decorating, of public buildings or public works.

Most HUD construction work is not covered by the DBA itself since HUD seldom contracts directly for construction services. Most often, if Davis-Bacon wage rates apply to a HUD project it is because of a labor provision contained in one of HUD's "Related Acts" such as the U. S. Housing Act of 1937, the National Housing Act, the Housing and Community Development Act of 1974, the National Affordable Housing Act of 1990, and the Native American Housing Assistance and Self-Determination Act of 1996. The Related Acts are often referred to as the Davis-Bacon and Related Acts or DBRA.

b. **The Contract Work Hours and Safety Standards Act (CWHSSA).** CWHSSA requires time and one-half pay for overtime (O/T) hours (over 40 in any workweek) worked on the covered project. The CWHSSA applies to both direct Federal contracts and to indirect Federally-assisted contracts ***except*** where the assistance is solely in the nature of a loan guarantee or insurance. CWHSSA violations carry a liquidated damages penalty ($10/day per violation). Intentional violations of CWHSSA standards can be considered for Federal criminal prosecution.

CWHSSA does not apply to prime contracts of $100,000 or less. In addition, some HUD projects are not covered by CWHSSA because some HUD programs only provide loan guarantees or insurance. CWHSSA also does not apply to construction or rehabilitation contracts that are not subject to Federal prevailing wage rates (e.g., Davis-Bacon wage rates, or HUD-determined rates for operation of public housing and Indian block grant-assisted housing). However, even though CWHSSA overtime pay is not required, Fair Labor Standards Act (FLSA) overtime pay is probably still applicable. (See also Labor Relations Letter SL-95-01, CWHSSA Coverage threshold for overtime and health and safety provision, available on-line at the HUD Labor Relations Library at: www.hud.gov/offices/olr/library.cfm)

c. **The Copeland Act (Anti-Kickback Act).** The Copeland Act makes it a Federal crime for anyone to require any laborer or mechanic (employed on a Federal or Federally-assisted project) to kickback (i.e., give up or pay back) any part of their wages. The Copeland Act requires every employer (contractors and subcontractors) to submit weekly certified payroll reports (CPRs) and regulates permissible payroll deductions.

d. **The Fair Labor Standards Act (FLSA).** The FLSA contains Federal minimum wage rates, overtime (O/T), and child labor requirements. These requirements generally apply to any labor performed. The DOL has the authority to administer and enforce FLSA. HUD will refer to the DOL any possible FLSA violations that are found on HUD projects.

1-2 DAVIS-BACON REGULATIONS.

The Department of Labor (DOL) has published rules and instructions concerning Davis-Bacon and other labor laws in the Code of Federal Regulations (CFR). These regulations can be found in ***Title 29 CFR Parts 1, 3, 5, 6 and 7***. Part 1 explains how the DOL establishes and publishes DBA wage determinations (aka wage decisions) and provides instructions on how to use the determinations. Part 3 describes Copeland Act requirements for payroll deductions and the submission of weekly certified payroll reports. Part 5 covers the labor standards provisions that are in your contract relating to Davis-Bacon Act wage rates and the responsibilities of contractors and contracting agencies to administer and enforce the provisions. Part 6 provides for administrative proceedings enforcing Federal labor standards on construction and service contracts. Last, Part 7 sets parameters for practice before the Administrative Review Board. These regulations are used as the basis for administering and enforcing the laws.

DOL Regulations are available on-line on the World Wide Web:
http://www.dol.gov/dol/allcfr/Title_29.htm

1-3 CONSTRUCTION CONTRACT PROVISIONS

Each contract subject to Davis-Bacon labor standards requirements must contain labor standards clauses and a Davis-Bacon wage decision. These documents are normally bound into the contract specifications.

a. The labor standards clauses. The labor standards clauses describe the responsibilities of the contractor concerning Davis-Bacon wages and obligate the contractor to comply with the labor requirements. The labor standards clauses also provide for remedies in the event of violations, including withholding from payments due to the contractor to ensure the payment of wages or liquidated damages which may be found due. These contract clauses enable the contract administrator to enforce the Federal labor standards applicable to the project. HUD has standard forms that contain contract clauses. For example, the HUD-2554, Supplementary Conditions to the Contract for Construction, which is issued primarily for FHA multifamily housing and other construction projects

administered by HUD; the HUD-4010, Federal Labor Standards Provisions, which is used for CDBG and HOME projects, and the HUD-5370, General Conditions of the Contract for Construction or the HUD-5370-EZ (construction contracts ≤$100,000) which are used for Public and Indian Housing projects.

HUD program labor standards forms are available on-line at:
www.hud.gov/offices/adm/hudclips/index.cfm

b. Davis-Bacon Wage Decisions. The Davis-Bacon wage decision (or wage determination) is a listing of various construction work classifications, such as Carpenter, Electrician, Plumber and Laborer, and the minimum wage rates (and fringe benefits, where prevailing) that people performing work in those classifications must be paid.

Davis-Bacon wage decisions are established by the DOL for various types of construction (e.g., residential, heavy, highway) and apply to specific geographic areas, usually a county or group of counties. Wage decisions are modified from time to time to keep them current. In most cases, when the contract is awarded or when construction begins, the wage decision is "locked-in" and no future modifications are applicable to the contract or project involved.

All current Davis-Bacon wage decisions can be accessed on-line at no cost at:
http://www.wdol.gov

1-4 RESPONSIBILITY OF THE PRINCIPAL CONTRACTOR

The principal contractor (also referred to as the ***prime*** or ***general contractor***) is responsible for the full compliance of all employers (the contractor, subcontractors and any lower-tier subcontractors) with the labor standards provisions applicable to the project. Because of the contractual relationship between a prime contractor and his/her subcontractors, subcontractors generally should communicate with the contract administrator only through the prime contractor. (See Contract Administrator, below.)

To make this Guide easier to understand, the term "prime contractor" will mean the principal contractor; "subcontractor" will mean all subcontractors including lower-tier subcontractors; and the term "employer" will mean all contractors as a group, including the prime contractor and any subcontractors and lower-tier subcontractors.

1-5 RESPONSIBILITY OF THE CONTRACT ADMINISTRATOR.

The ***contract administrator*** is responsible for the proper administration and enforcement of the Federal labor standards provisions on contracts covered by Davis-Bacon requirements. We use this term to represent the person (or persons) who will provide labor standards advice and support to you and other project principals (e.g., the owner, sponsor, architect), including providing the proper Davis-Bacon wage decision (see 2-1, ***The Wage Decision***) and ensuring that the wage decision and contract clauses are incorporated into the contract for construction. The contract administrator also monitors labor standards compliance (see 2-6, ***Compliance Reviews***) by conducting interviews with construction workers at the job site and reviewing payroll reports, and oversees any enforcement actions that may be required.

The contract administrator could be an employee or agent of HUD, or of a city or county or public housing agency. For HUD projects administered directly by HUD staff, usually FHA-insured multifamily projects, the contract administrator will be the HUD Labor Relations field staff. But many HUD-assisted projects are administered by local contracting agencies such as Public Housing Agencies (PHAs), Indian tribes and tribally-designated housing entities (TDHEs), and States, cities and counties under HUD's Community Development Block Grant (CDBG) and HOME programs. In these cases, the contract administrator will likely be local agency staff. In either case, the guidance for you remains essentially the same.

The DOL also has a role in monitoring Davis-Bacon administration and enforcement. In addition, DOL has independent authority to conduct investigations. A DOL investigator or other DOL representative may visit Davis-Bacon construction sites to interview construction workers or review payroll information.

CHAPTER 2 HOW TO COMPLY WITH LABOR STANDARDS AND PAYROLL REPORTING REQUIREMENTS

WHERE TO START? Now that you know you're on a Davis-Bacon project and you know some of the legal and practical implications, what's next?

SECTION I - THE BASICS

2-1 THE WAGE DECISION.

Davis-Bacon labor standards stipulate the wage payment requirements for Carpenters, Electricians, Plumbers, Roofers, Laborers, and other construction work classifications that may be needed for the project. The Davis-Bacon wage decision that applies to the project contains a schedule of work classifications and wage rates that must be followed. If you don't have it already (and by now you should), you'll want to get a copy of the applicable Davis-Bacon wage decision.

Remember, the wage decision is contained in the contract specifications along with the labor standards clauses. See 1-3, Construction Contract Provisions.

a. **The work classifications and wage rates.** A Davis-Bacon wage decision is simply a listing of different work classifications and the minimum wage rates that must be paid to anyone performing work in those classifications. You'll want to make sure that the work classification(s) you need are contained in the wage decision and make certain you know exactly what wage rate(s) you will need to pay. Some wage decisions cover several counties and/or types of construction work (for example, residential and commercial work) and can be lengthy and difficult to read. Contact the contract administrator (HUD Labor Relations field staff or local agency staff) if you have any trouble reading the wage decision or finding the work classification(s) you need.

To make reading lengthy wage decisions easier for you, the contract administrator may prepare a Project Wage Rate Sheet (HUD-4720). This Sheet is a one-page transcript that will show only the classifications and wage rates for a particular project. A blank copy of a Project Wage Rate Sheet is provided for you in the appendix. Also, a fillable version of this form is available on-line at HUDClips (see web address in the Appendix). Contact the contract administrator monitoring your project for assistance with a Project Wage Rate Sheet.

b. **Posting the wage decision.** If you are the prime contractor, you will be responsible for posting a copy of the wage decision (or the Project Wage Rate Sheet) and a copy of the DOL Davis-Bacon poster titled Employee Rights under the Davis-Bacon Act (Form WH-1321) at the job site in a place that is easily accessible to all of the construction workers employed at the project and where the wage decision and poster won't be destroyed by wind or rain, etc. The Employee Rights under the Davis-Bacon Act poster is available in English and Spanish on-line at HUDClips (see address in the Appendix).

The Employee Rights under the Davis-Bacon Act poster (WH-1321) replaces the Notice to all Employees. The new poster is available in English and Spanish on-line at HUDClips (see address in the Appendix).

2-2 ADDITIONAL "TRADE" CLASSIFICATIONS AND WAGE RATES.

What if the work classification you need isn't on the wage decision? If the work classification(s) that you need doesn't appear on the wage decision, you will need to request an additional classification and wage rate. This process is usually very simple and you'll want to start the request right away. Basically, you identify the classification you need and recommend a wage rate for DOL to approve for the project. There are a few rules about additional classifications; you'll find these rules in the DOL regulations, Part 5, and in the labor clauses in your contract. The rules are summarized for you here:

a. **Additional classification rules.** Additional classifications and wage rates can be approved if:

1. The requested classification is used by construction contractors in the area of the project. (The area is usually defined as the county where the project is located).

2. The work that will be performed by the requested classification is not already performed by another classification that is already on the wage decision. (In other words, if there already is an Electrician classification and wage rate on the wage decision you can't request another Electrician classification and rate.)

3. The proposed wage rate for the requested classification "fits" with the other wage rates already on the wage decision. (For example, the wage rate proposed for a trade classification such as Electrician must be at least as much as the lowest wage rate for other trade classifications already contained in the wage decision.) And,

4. The workers that will be employed in the added classification (if it is known who the workers are/will be), or the workers' representatives, must agree with the proposed wage rate.

b. **Making the request.** A request for additional classification and wage rate must be made in writing through the contract administrator. (If the contract administrator is a local agency, the agency will send the request to the HUD Labor Relations staff.) If you are a subcontractor, your request should also go through the prime contractor. All you need to do is identify the work classification that is missing and recommend a wage rate (usually the rate that employer is already paying to the employees performing the work) for that classification. You may also need to describe the work that the new classification will perform.

c. **HUD review.** The HUD Labor Relations field staff will review the requested classification and wage rate to determine whether the request meets the DOL rules outlined in paragraph 2-2(a), above. If additional information or clarification is needed, the staff will contact the prime contractor (or contract administrator for local agency projects) for more information, etc. If the Labor Relations review finds that the request meets the rules, the staff will give preliminary approval on the request and refer it to the DOL for final approval. The staff will send to you a copy of the preliminary approval/referral letter to the DOL.

   If the HUD Labor Relations staff doesn't think the request meets the rules and if agreement can't be reached on the proper classification or wage rate for the work described, the HUD Labor Relations staff will not approve the request. In this case, the staff will send your request to the DOL with an explanation why HUD believes that the request shouldn't be approved. The DOL still has final decision authority. You will receive a copy of the disapproval/referral letter to the DOL.

d. **DOL decision.** The DOL will respond to HUD Labor Relations in writing about the additional classification and wage rate request. HUD Labor Relations will notify you of the DOL decision in writing. If the DOL approves the request, the prime contractor must post the approval notice on the job site with the wage decision.

   If the DOL does not approve the request, you will be notified about what classification and wage rate should be used for the work in question. You will also receive instructions about how to ask for DOL reconsideration if you still want to try to get your recommendation approved.

It's always a good idea to talk to the contract administrator before submitting an additional classification and wage rate request. The contract administrator can offer suggestions and advice that may save you time and increase the likelihood that DOL will approve your request. Usually, the contract administrator can give you an idea about what the DOL will finally decide.

2-3 CERTIFIED PAYROLL REPORTS.

You'll need to submit a weekly certified payroll report (CPR) beginning with the first week that your company works on the project and for every week afterward until your firm has completed its work. It's always a good idea to number the payroll reports beginning with #1 and to clearly mark your last payroll for the project "Final."

a. **Payroll formats.** The easiest form to use is DOL's WH-347, Payroll. A sample copy of the WH-347 is included in the back of this Guide. You may access a fillable version of the WH-347 on-line at HUDClips (see web address in the Appendix). Also, the contract administrator can provide a few copies of the WH-347 that you can reproduce.

> You are not required to use Payroll form WH-347. You are welcome to use any other type of payroll, such as computerized formats, as long as it contains all of the information that is required on the WH-347.

b. **Payroll certifications.** The weekly payrolls are called certified because each payroll is signed and contains language certifying that the information is true and correct. The payroll certification language is on the reverse side of the WH-347. If you are using another type of payroll format you may attach the certification from the back of the WH-347, or any other format which contains the same certification language on the WH-347 (reverse).

> DOL's website has Payroll Instructions and the Payroll form WH-347 in a "fillable" PDF format at this address:
> www.dol.gov/whd/forms/wh347.pdf

c. **"No work" payrolls.** "No work" payrolls may be submitted whenever there is a temporary break in your work on the project, for example, if your firm is not needed on the project right now but you will be returning to the job in a couple of weeks. (See tip box, for "no work" payroll exemption!) However, if you know that your firm will not be working on the project for an extended period of time, you may wish to send a short note to the contract administrator to let them know about the break in work and to give an approximate date when your firm will return to the project. If you number payrolls consecutively or if you send a note, you do not need to send "no work" payrolls.

> If you number your payroll reports consecutively, you do not need to submit "no work" payrolls!

d. **Payroll review and submission.** The prime contractor should review each subcontractor's payroll reports for compliance prior to submitting the reports to the contract administrator. Remember, the prime contractor is responsible for the full compliance of all subcontractors on the contract and will be held accountable for any wage restitution that may be found due to any laborer or mechanic that is underpaid and for any liquidated damages that may be assessed for overtime violations. All of the payroll reports for any project must be submitted to the contract administrator through the prime contractor.

An alert prime contractor that reviews subcontractor payroll submissions can detect any misunderstandings early, prevent costly underpayments and protect itself from financial loss should underpayments occur.

e. **Payroll retention.** Every contractor (including every subcontractor) must keep a complete set of their own payrolls and other basic records such as employee addresses and full SSNs, time cards, tax records, evidence of fringe benefit payments, for a Davis-Bacon project for at least 3 years after the project is completed. The prime contractor must keep a complete set of all of the payrolls for every contractor (including subcontractors) for at least 3 years after completion of the project.

f. **Payroll inspection.** In addition to submitting payrolls to the contract administrator, every contractor (including subcontractors) must make their own copy of the payrolls and other basic records available for review or copying to any authorized representative from HUD or from DOL.

2-4 DAVIS-BACON DEFINITIONS.

Before we discuss how to complete the weekly payroll forms, we need to review a couple of definitions. These definitions can help you understand what will be required of you:

a. **Laborer or mechanic.** "Laborers" and "mechanics" mean anyone who is performing construction work on the project, including trade journeymen (carpenters, plumbers, sheet metal workers, etc.), apprentices, and trainees and, for CWHSSA purposes, watchmen and guards. "Laborers" and "mechanics" are the two groups of workers that must be paid not less than Davis-Bacon wage rates.

1. **Working foremen**. Foremen or supervisors that regularly spend more than 20% of their time performing construction work and do not meet the exclusions in paragraph 2 below are covered "laborers" and "mechanics" for labor standards purposes for the time spent performing construction work.

2. **Exclusions.** People whose duties are primarily administrative, executive or clerical are not laborers or mechanics. Examples include superintendents, office staff, timekeepers, messengers, etc. (Contact the contract administrator if you have any questions about whether a particular employee is excluded.)

b. **Employee.** Every person who performs the work of a laborer or mechanic is "employed" regardless of any contractual relationship which may be alleged to exist between a contractor or subcontractor and such person. This means that even if there is a contract between a contractor and a worker, the contractor must make sure that the worker is paid at least as much as the wage rate on the wage decision for the classification of work they perform. Note that there are no exceptions to the prevailing wage requirements for relatives or for self-employed laborers and mechanics.

For more information about working subcontractors, ask the contract administrator or your HUD Labor Relations Field Staff for a copy of Labor Relations Letter LR-96-01, Labor standards compliance requirements for self-employed laborers and mechanics. Labor Relations Letters and other helpful Labor Relations publications are available at HUD's Labor Relations web site (see the list of web site addresses in the Appendix).

c. **Apprentices and trainees.** The only workers who can be paid less than the wage rate on the wage decision for their work classification are "apprentices" and "trainees" registered in approved apprenticeship or training programs. Approved programs are those which have been registered with the DOL or a DOL-recognized State Apprenticeship Council (SAC). Apprentices and trainees are paid wage rates in accordance with the wage schedule in the approved program.

Most often, the apprentice/trainee wage rate is expressed as a series of percentages tied to the amount of time spent in the program. For example, 0-6 months: 65%; 6 months - 1 year: 70%; etc. The percentage is applied to the journeyman's wage rate. On Davis-Bacon projects, the percentage must be applied to the journeyman's wage rate on the applicable wage decision for that craft.

1. **Probationary apprentice.** A "probationary apprentice" can be paid as an apprentice (less than the rate on the wage decision) if the DOL or SAC has certified that the person is eligible for probationary employment as an apprentice.

2. **Pre-apprentice.** A "pre-apprentice", that is, someone who is not registered in a program and who hasn't been DOL- or SAC-certified for probationary apprenticeship is not considered to be an "apprentice" and must be paid the full journeyman's rate on the wage decision for the classification of work they perform.

3. **Ratio of apprentices and trainees to journeymen.** The maximum number of apprentices or trainees that you can use on the job site cannot exceed the ratio of apprentices or trainees to journeymen allowed in the approved program.

d. **Prevailing wages or wage rates.** Prevailing wage rates are the wage rates listed on the wage decision for the project. The wage decision will list a minimum basic hourly rate of pay for each work classification. Some wage decisions include fringe benefits which are usually listed as an hourly fringe rate. If the wage decision includes a fringe benefit rate for a classification, you will need to add the fringe benefit rate to the basic hourly rate unless you provide bona fide fringe benefits for your employees.

   1. **Piece-work.** Some employees are hired on a piece-work basis, that is, the employee's earnings are determined by a factor of work produced. For example, a Drywall Hanger's earnings may be calculated based upon the square feet of sheetrock actually hung, a Painter's earnings may be based upon the number of units painted. Employers may calculate weekly earnings based upon piece rates provided the weekly earnings are sufficient to satisfy the wage rate requirement based upon actual hours, including any overtime, worked. Accurate time records must be maintained for any piece-work employees. If the weekly piece rate earnings are not sufficient, the employer must recompute weekly earnings based upon the actual hours worked and the rate on the wage decision for the work classification(s) involved.

e. **Fringe benefits** Fringe benefits can include health insurance premiums, retirement contributions, life insurance, vacation and other paid leave as well as some contributions to training funds. Fringe benefits do not include employer payments or contributions required by other Federal, State or local laws, such as the employer's contribution to Social Security or some disability insurance payments.

Note that the total hourly wage rate paid to any laborer or mechanic (basic wage or basic wage plus fringe benefits) may be no less than the total wage rate (basic wage or basic wage plus fringe benefits) on the wage decision for their craft. If the value of the fringe benefit(s) you provide is less than the fringe benefit rate on the wage decision, you will need to add the balance of the wage decision fringe benefit rate to the basic rate paid to the employee. For example, if the wage decision requires $10/hour basic rate plus $5/ hour fringe benefits, you must pay no less than that total ($15/hour) in the basic rate or basic rate plus whatever fringe benefit you may provide. You can meet this obligation in several ways: you could pay the base wage and fringe benefits as stated in the wage decision, or you could pay $15 in base wage with no fringe benefits, or you could pay $12 basic plus $3 fringe benefits. You can also off-set the amount of the base wage if you pay more in fringe benefits such as by paying or $9 basic plus $6 fringe benefits; as long as you meet the total amount. The amount of the base wage that you may off-set with fringe benefits is limited by certain IRS and FLSA requirements.

f. **Overtime.** Overtime hours are defined as all hours worked on the contract in excess of 40 hours in any work week. Overtime hours must be paid at no less than one and one-half times the regular rate of basic pay plus the straight-time rate of any required fringe benefits.

g. **Deductions.** You may make payroll deductions as permitted by DOL Regulations 29 CFR Part 3. These regulations prohibit the employer from requiring employees to "kick-back" (i.e., give up) any of their earnings. Allowable deductions which do not require prior DOL permission include employee obligations for income taxes, Social Security payments, insurance premiums, retirement, savings accounts, and any other legally-permissible deduction authorized by the employee. Deductions may also be made for payments on judgments and other financial obligations legally imposed against the employee.

Referring, again, to our example above where the wage decision requiring a $15 total wage obligation ($10 basic wage plus $5 fringe benefits) was met by paying $9 base wage plus $6 fringe benefits: Note that overtime rates must be based on one and one-half times the basic rate as stated on the wage decision. In the above example, the employer must pay for overtime: $15/hr ($9 basic + $6 fringe) plus $5 (one-half of $10, the wage decision basic rate) for a total of $20 per hour.

h. **Proper designation of trade.** You must select a work classification on the wage decision for each worker based on the actual type of work he/she performed and you must pay each worker no less than the wage rate on the wage decision for that classification regardless of their level of skill. In other words, if someone is performing carpentry work on the project, they must be paid no less than the wage rate on the wage decision for Carpenters even if they aren't considered by you to be fully trained as a Carpenter. Remember, the only people who can be paid less than the rate for their craft are apprentices and trainees registered in approved programs.

    1. **Split-classification.** If you have employees that perform work in more than one trade during a work week, you can pay the wage rates specified for each classification in which work was performed only if you maintain accurate time records showing the amount of time spent in each classification of work. If you do not maintain accurate time records, you must pay these employees the highest wage rate of all of the classifications of work performed.

i. **Site of work.** The "site of work" is where the Davis-Bacon wage rates apply. Usually, this means the boundaries of the project. "Site of work" can also include other adjacent or virtually adjacent property used by a contractor or subcontractor in the construction of the project, like a fabrication site that is dedicated exclusively, or nearly so, to the project.

SECTION II - REPORTING REQUIREMENTS

2-5 COMPLETING A PAYROLL REPORT.

What information has to be reported on the payroll form? The weekly payroll form doesn't ask for any information that you don't already need to keep for wage payment and tax purposes. For example, you need to know each employee's name; his or her work classification (who is working for you and what do they do?), the hours worked during the week, his or her rate of pay, the gross amount earned (how much did they earn?), the amounts of any deductions for taxes, etc., and the net amount paid (how much should the paycheck be made out for?). No more information than you need to know in order to manage your work crew and make certain they are paid properly. And, certainly, no more information than you need to keep for IRS, Social Security and other tax and employment purposes.

For many contractors, the Weekly Certified Payroll is the only Davis-Bacon paperwork you need to submit!

You are required to submit certified payrolls to illustrate and document that you have complied with the prevailing wage requirements. The purpose of the contract administrator's review of your payrolls is to verify your compliance. Clearer and complete payroll reports will permit the contract administrator to complete reviews of your payroll reports quickly.

a. **Project and contractor/subcontractor information.** Each payroll must identify the contractor or subcontractor's name and address, the project name and number, and the week ending date. Indicate the week dates in the spaces provided. Numbering payrolls is optional but strongly recommended.

b. **Employee information.** Effective January 18, 2009, payrolls shall not report employee addresses or full Social Security Numbers (SSNs). Instead, the first payroll on which each employee appears shall include the employee's name and an individually identifying number, usually the last 4 digits of the employee's SSN. Afterward, the identifying number does not need to be reported unless it is necessary to distinguish between employees, e.g., if two employees have the same name.

   Employers (prime contractors and subcontractors) must maintain the current address and full SSN for each employee and must provide this information upon request to the contracting agency or other authorized representative responsible for federal labor standards compliance monitoring. Prime contractors may require a subcontractor(s) to provide this information for the prime contractor's records. DOL has modified form WH-347, Payroll, to accommodate these reporting requirements.

c. **Work classification.** Each employee must be classified in accordance with the wage decision based on the type of work they actually perform.

1. **Apprentices or trainees.** The first payroll on which any apprentice or trainee appears must be accompanied by a copy of that apprentice's or trainee's registration in a registered or approved program. A copy of the portions of the registered or approved program pertaining to the wage rates and ratios shall also accompany the first payroll on which the first apprentice or trainee appears.

2. **Split classifications.** For an employee that worked in a split classification, make a separate entry for each classification of work performed distributing the hours of work to each classification, accordingly, and reflecting the rate of pay and gross earnings for each classification. Deductions and net pay may be based upon the total gross amount earned for all classifications.

d. **Hours worked.** The payroll should show ONLY the regular and overtime hours worked on this project. Show both the daily and total weekly hours for each employee. If an employee performs work at job sites other than the project for which the payroll is prepared, those "other job" hours should not be reported on the payroll. In these cases, you should list the employee's name, classification, hours for this project only, the rate of pay and gross earnings for this project, and the gross earned for all projects. Deductions and net pay may be based upon the employee's total earnings (for all projects) for the week.

e. **Rate of pay.** Show the basic hourly rate of pay for each employee for this project. If the wage decision includes a fringe benefit and you do not participate in approved fringe benefit programs, add the fringe benefit rate to the basic hourly rate of pay. Also list the overtime rate if overtime hours were worked.

1. **Piece-work.** For any piece-work employees, the employer must compute an effective hourly rate for each employee each week based upon the employee's piece-work earnings for that week. To compute the effective hourly rate, divide the piece-work earnings by the total number of hours worked, including consideration for any overtime hours.

   The effective hourly rate must be reflected on the certified payroll and this hourly rate may be no less than the wage rate (including fringe benefits, if any) on the wage decision for the classification of work performed. It does not matter that the effective hourly rate changes from week-to-week, only that the rate is no less than the rate on the wage decision for the classification of work performed.

Remember, the overtime rate is computed at one and one-half times the basic rate of pay plus any fringe benefits. For example, if the wage decision requires $10/hour basic plus $5/hour fringe benefits, the overtime rate would be: ($10 x 1 ½) + $5 = $20/hour.

f. **Gross wages earned.** Show the gross amount of wages earned for work performed on this project. Note: For employees with work hours and earnings on other projects, you may show gross wages for this project over gross earnings all projects (for example, $425.40/$764.85) and base deductions and net pay on the "all projects" earnings.

g. **Deductions.** Show the amounts of any deductions from the gross earnings. "Other" deductions should be identified (for example, Savings Account or Loan Repayment). Any voluntary deduction (that is, not required by law or by an order of a proper authority) must be authorized in writing by the employee or provided for in a collective bargaining (union) agreement. A short note signed by the employee is all that is needed and should accompany the first payroll on which the other deduction appears.

Only one employee authorization is needed for recurring (e.g., weekly) other deductions. Written employee authorization is not required for income tax and Social Security deductions.

h. **Net pay.** Show the net amount of wages paid.

i. **Statement of compliance.** The Statement of Compliance is the certification. It is located on the reverse side of a standard payroll form (WH-347). Be sure to complete the identifying information at the top, particularly if you are attaching the Statement of Compliance to an alternate payroll form such as a computer payroll. Also, you must check either 4(a) or 4(b) if the wage decision contains a fringe benefit. Checking 4(a) indicates that you are paying required fringe benefits to approved plans or programs; and 4(b) indicates that you are paying any required fringe benefit amounts directly to the employee by adding the fringe benefit rate to the basic hourly rate of pay. If you are paying a portion of the required fringe benefit to programs and the balance directly to the employee, explain those differences in box 4(c).

Only one Statement of Compliance is required for each employer's weekly payroll no matter how many pages are needed to report the employee data.

j. **Signature.** Make sure the payroll is signed with an original signature in ink. The payroll must be signed by a principal of the firm (owner or officer such as the president, treasurer or payroll administrator) or by an authorized agent (a person authorized by a principal in writing to sign the payroll reports). Signature authorization (for persons other than a principal) should be submitted with the first payroll signed by such an agent. Signatures in pencil; signature stamps; xerox, pdf and other facsimiles are not acceptable.

SECTION III - PAYROLL REVIEWS AND CORRECTIONS

2-6 COMPLIANCE REVIEWS.

The contract administrator or other inspector may visit the project site and interview some of the workers concerning their employment on the project. The DOL may also independently conduct its own reviews (see 1-5). In addition, the contract administrator will periodically review payrolls and related submissions, comparing the interview information to the payrolls, to ensure that the labor standards requirements have been met. You will be notified by the contract administrator if these reviews find any discrepancies or errors. You will be given instructions about what steps must be taken to correct any problems.

a. **On-site interviews.** Every employer (contractor, subcontractor, etc.) must make their employees available for interview at the job site with the contract administrator or other agency representative, or HUD or DOL representative. The interviews are confidential and the employee will be asked about the kind of work they perform and their rate of pay. Every effort will be made to ensure that these interviews cause as little disruption as possible to the on-going work. The interviewer will record the interview information, usually on a form HUD-11, Record of Employee Interview, and forward the interviews to the contract administrator.

b. **Project payroll reviews.** The contract administrator will compare the information on the interview forms to the corresponding payrolls to ensure that the workers are properly listed on the payrolls for the days and hours worked on the job site, work classification and rate of pay. The contract administrator will also review the payroll submissions to make certain that the payrolls are complete and signed; that employees are paid no less than the wage rate for the work classification shown; apprentice and trainee certifications are submitted (where needed); employee or other authorizations for other deductions are submitted (where needed); etc.

2-7 TYPICAL PAYROLL ERRORS AND REQUIRED CORRECTIONS.

The following paragraphs describe common payroll errors and the corrective steps you must take.

a. **Inadequate payroll information.** If an alternate payroll format used by an employer (such as some computer payrolls) is inadequate, e.g., does not contain all of the necessary information that would be on the optional form WH-347, the employer will be asked to resubmit the payrolls on an acceptable form.

b. **Missing identification numbers.** If the first payroll on which an employee appears does not contain the employee's individually identifying number, the employer will be asked to supply the missing information. This information can be reported on the next payroll submitted by the employer if the employer is still working on the project. Otherwise, the employer will be asked to submit a correction certified payroll.

c. **Incomplete payrolls.** If the information on the payroll is not complete, for example, if work classifications or rates of pay are missing, the employer will be asked to send a correction certified payroll.

d. **Classifications.** If the payrolls show work classifications that do not appear on the wage decision, the employer will be asked to reclassify the employees in accordance with the wage decision or the employer may request an additional classification and wage rate (see 2-2). If reclassification results in underpayment (i.e., the wage rate reported on the payroll is less than the rate required for the new classification), the employer will be asked to pay wage restitution to all affected reclassified employees. (see 2-8 for instructions about wage restitution.)

e. **Wage rates.** If the wage rates on the payroll are less than the wage rates on the wage decision for the work classifications reported, the employer will be asked to pay wage restitution to all affected employees.

f. **Apprentices and trainees.** If a copy of the employee's registration or the approved program ratio and wage schedule are not submitted with the first payroll on which an apprentice or trainee appears, the employer will be asked to submit a copy of each apprentice's or trainee's registration and/or the approved program ratio and wage schedule. If the ratio of apprentices or trainees to journeymen on the payroll is greater than the ratio in the approved program, the employer will be asked to pay wage restitution to any excess apprentices or trainees. Also, any apprentice or trainee that is not registered in an approved program must receive the journeyman's wage rate for the classification of work they performed.

g. **Overtime.** If the employees did not receive at least time and one-half for any overtime hours worked on the project, the following will occur:

   1. If the project is subject to CWHSSA overtime requirements, the employer will be asked to pay wage restitution for all overtime hours worked on the project. The employer may also be liable to the United States for liquidated damages computed at $10 per day per violation. Or,

   2. If the project is not subject to CWHSSA, the employer will be notified of the possible FLSA overtime violations. Also, the contract administrator may refer the matter to the DOL for further review.

h. **Computations.** If the payroll computations (hours worked times rate of pay) or extensions (deductions, net pay) show frequent errors, the employer will be asked to take greater care. Wage restitution may be required if underpayments resulted from the errors.

i. **Deductions.** If there are any "Other" deductions that are not identified, or if employee authorization isn't provided, or if there is any unusual (very high, or large number) deduction activity, the employer will be asked to identify the deductions, provide employee authorization or explain unusual deductions, as necessary.

HUD does not enforce or attempt to provide advice on employer obligations to make deductions from employee earnings for taxes or Social Security. However, HUD may refer to the IRS or other responsible agency copies of certified payroll reports that show wages paid in gross amounts (i.e., without tax deduction) for its review and appropriate action.

j. **Fringe benefits.** If the wage decision contains fringe benefits but the payroll does not indicate how fringe benefits were paid [neither 4(a) nor 4(b) is marked on the Statement of Compliance], the employer may be asked to submit correction certified payrolls and will be required to pay wage restitution if underpayments occurred. However, if the basic hourly rates for the employees are at least as much as the total wage rate on the wage decision (basic hourly rate plus the fringe benefit rate), no correction is necessary.

k. **Signature.** If the payroll Statement of Compliance is not signed or is missing, the employer will be asked to submit a signed Statement of Compliance for each payroll affected. If the Statement of Compliance is signed by a person who is not a principle of the firm and that person has not been authorized by principle to sign, the employer will be asked to provide an authorization or to resubmit the Statement(s) of Compliance bearing the signature of a principle or other authorized signatory.

l. **On-site interview comparisons.** If the comparison of on-site interviews to the payrolls indicates any discrepancies (for example, the employee does not appear on the payroll for the date of the interview), the employer will be asked to submit a correction certified payroll report.

m. **Correction certified payroll.** Any and all changes to data on a submitted payroll report must be reported on a certified correction payroll. In no case will a payroll report be returned to the prime contractor or employer for revision.

2-8 RESTITUTION FOR UNDERPAYMENT OF WAGES.

Where underpayments of wages have occurred, the employer will be required to pay wage restitution to the affected employees. Wage restitution must be paid promptly in the full amounts due, less permissible and authorized deductions. All wages paid to laborers and mechanics for work performed on the project, including wage restitution, must be reported on a certified payroll report.

a. **Notification** to the Employer/Prime contractor. The contract administrator will notify the employer and/or prime contractor in writing of any underpayments that are found during payroll or other reviews. The contract administrator will describe the underpayments and provide instructions for computing and documenting the restitution to be paid. The employer/ prime contractor is allowed 30 days to correct the underpayments. Note that the prime contractor is responsible to the contract administrator for ensuring that restitution is paid. If the employer is a subcontractor, the subcontractor will usually make the computations and restitution payments and furnish the required documentation through the prime contractor.

The contract administrator may communicate directly with a subcontractor when the underpayments are plainly evident and the subcontractor is cooperative. It is best to work through the prime contractor when the issues are complex, when there are significant underpayments and/or the subcontractor is not cooperative. In all cases, the subcontractor must ensure that the prime contractor receives a copy of the required corrective documentation.

b. **Computing wage restitution.** Wage restitution is simply the difference between the wage rate paid to each affected employee and the wage rate required on the wage decision for all hours worked where underpayments occurred. The difference in the wage rates is called the adjustment rate. The adjustment rate times the number of hours involved equals the gross amount of restitution due. You may also compute wage restitution by calculating the total amount of Davis-Bacon wages earned and subtracting the total amount of wages paid. The difference is the amount of back wages due.

c. **Correction certified payrolls.** The employer will be required to report the restitution paid on a correction certified payroll. The correction payroll will reflect the period of time for which restitution is due (for example, Payrolls #1 through #6; or a beginning date and ending date). The correction payroll will list each employee to whom restitution is due and their work classification; the total number of work hours involved (daily hours are usually not applicable for wage restitution); the adjustment wage rate (the difference between the required wage rate and the wage rate paid); the gross amount of restitution due; deductions and the net amount actually paid. A properly signed Statement of Compliance must accompany the correction payroll.

HUD no longer requires the signature of the employee on the correction payroll to evidence employee receipt of restitution payment. In addition, except in the most extraordinary cases, HUD no longer requires employers to submit copies of restitution checks (certified, cashiers, canceled or other), or employee-signed receipts or waivers.

d. **Review of correction CPR.** The contract administrator will review the correction certified payroll to ensure that full restitution was paid. The prime contractor shall be notified in writing of any discrepancies and will be required to make additional payments, if needed, documented on a correction certified payroll within 30 days.

e. **Unfound workers.** Sometimes, wage restitution cannot be paid to an affected employee because, for example, the employee has moved and can't be located. After wage restitution has been paid to all of the workers who could be located, the employer must submit a list of any workers who could not be found and paid (i.e., unfound workers) providing their names, Social Security Numbers, last known addresses and the gross amount due. In such cases, at the end of the project the prime contractor will be required

to place in a deposit or escrow account an amount equal to the total gross amount of restitution that could not be paid because the employee(s) could not be located. The contract administrator will continue attempts to locate the unfound workers for 3 years after the completion of the project. After 3 years, any amount remaining in the account for unfound workers will be credited and/or forwarded by the contract administrator to HUD.

CHAPTER 3 LABOR STANDARDS DISPUTES, ADMINISTRATIVE REVIEWS, WITHHOLDING, DEPOSITS AND ESCROW ACCOUNTS, AND SANCTIONS

WHAT HAPPENS WHEN THINGS GO WRONG?

3-1 INTRODUCTION.

Even in the best of circumstances, things can go wrong. In a Davis-Bacon context, "things going wrong" usually means there's a difference of opinion or a dispute about whether and to what extent underpayments have occurred. These disputes are usually between the contract administrator and one or more employers (the prime contractor and/ or a subcontractor). The dispute may involve something simple such as an additional classification request that is pending before the DOL; or something as significant as investigative findings following a complaint of underpayment. This chapter discusses some of what you may expect and what you can do to make your views known and to lessen any delays in resolving the problem or issue.

3-2 ADMINISTRATIVE REVIEW ON LABOR STANDARDS DISPUTES.

As mentioned in the Introduction above, a dispute about labor standards and compliance can arise for a number of reasons. The labor standards clauses in your contract and DOL regulations provide for administrative review of issues where there is a difference of views between the contract administrator and any employer. The most common circumstances include:

a. **Additional classifications and wage rates.** Additional classification and wage rate requests are sometimes denied by the DOL. An employer that is dissatisfied with the denial can request reconsideration by the DOL Wage and Hour Administrator. The employer may continue to pay the wage rate, as requested, until a final decision is rendered on the matter. When the final decision is known, the employer will be required to pay any additional wages that may be necessary to satisfy the wage rate that is established.

1. **Reconsideration.** The DOL normally identifies the reasons for denial in its response to the request. Any interested person (for example, the contract administrator, employer, representatives of the employees) may request reconsideration of the decision on the additional classification request. The request for reconsideration must be made in writing and must thoroughly address the denial reasons identified by the DOL. Employer requests for reconsideration should be made through the contract administrator but may be made directly to the DOL. (See 2-2(d), and also DOL Regulations 29 CFR 1.8.) All requests initiated by or made through the contract administrator or HUD must be submitted through the HUD Headquarters Office of Labor Relations.

2. **Administrative Review Board.** Any interested party may request a review of the Administrator's decision on reconsideration by the DOL's Administrative Review Board. DOL regulations 29 CFR Part 7 explain the procedures for such reviews. (See also 29 CFR 1.9.)

b. **Findings of underpayment.** Compliance reviews and other follow-up enforcement actions may result in findings of underpayment. The primary goal in every case and at every step in this process is to reach agreements about who may have been underpaid and how much wage restitution may be due and, of course, to promptly deliver restitution to any underpaid workers. The contract administrator will usually work informally with you to reach such agreements. You will have an opportunity to provide additional information to the contract administrator that may explain apparent inconsistencies and/or resolve the discrepancies.

If informal exchanges do not result in agreement, the final determination and schedule of back wages due will be presented to you in writing and you will be permitted 30 days in which to correct the underpayment(s) or to request a hearing on the matter before the DOL. The request for hearing must be made in writing through the contract administrator and must explain what findings are in dispute and the reasons. In such cases, HUD is required to submit a report to DOL for review and further consideration. All requests for DOL hearing must be submitted through the HUD Headquarters Office of Labor Relations.

1. **DOL review.** The DOL will review the contract administrator's report and the arguments against the findings presented in the hearing request. The DOL may affirm or modify the findings based upon the materials presented. You will be notified in writing by the DOL of the results of its review. If DOL concludes that violations have occurred, you will be given an opportunity to correct any underpayments or to request a hearing before a DOL Administrative Law Judge (ALJ). (See DOL Regulations 29 CFR 5.11 (b) and 29 CFR Part 6, Rules of Practice for Administrative Proceedings.)

2. **Administrative Review Board.** Contractors and/or subcontractors may request a review by the Administrative Review Board of the decision(s) rendered by the DOL ALJ in the administrative hearing process. See DOL regulations 29 CFR Part 7 for more information about this proceeding.

3-3 WITHHOLDING.

The contract administrator shall cause withholding from payments due to the prime contractor to ensure the payment of wages which are believed to be due and unpaid, for example, if wage underpayments or other violations are not corrected within 30 days after written notification to the prime contractor. DOL may also direct the withholding of contract payments for alleged wage underpayments. Withholding is considered to be serious and is not taken unless warranted. If withholding is deemed necessary, you will be notified in writing. Only the amounts needed to meet the contractor's (and/or subcontractors') liability shall be withheld.

3-4 DEPOSITS AND ESCROWS.

In every case, we attempt to complete compliance actions and resolve any disputes before the project is completed and final payments are made. Sometimes, corrective actions or disputes continue after completion and provisions must be made to ensure that funds are available to pay any wage restitution that is ultimately found due. In these cases, we allow projects to proceed to final closing and final payments provided the prime contractor deposits an amount equal to the potential liability for wage restitution and liquidated damages, if necessary, in a special account. The deposit or escrow account is controlled by the contract administrator. When a final decision is rendered, the contract administrator makes disbursements from the account in accordance with the decision. Deposit/escrow accounts are established for one or more of the following reasons:

Remember, the prime contractor is responsible and will be held liable for any wage restitution that is due to any worker employed in the construction of the project, including workers employed by subcontractors and any lower-tier subcontractors. See 1-4, Responsibility of the Principal Contractor, and 2-8, Restitution for Underpayment of Wages.

a. **Where the parties have agreed to amounts of wage restitution that are due** but the employer hasn't furnished evidence yet that all of the underpaid workers have received their back wages, e.g., some of the workers have moved and could not be located. The amount of the deposit is equal to the total gross amount of restitution due to workers lacking payment evidence. As these workers are paid and proper documentation is provided to the contract administrator, amounts corresponding to the documented payments are returned to the depositor. Amounts for any workers who cannot be located are held in the deposit/escrow account for three years and disposed as described in 2-8(f) of this Guide.

b. **Where underpayments are suspected or alleged and an investigation has not yet been completed.** The deposit is equal to the amount of wage restitution and any liquidated damages, if applicable, that are estimated to be due. If the final determination of wages due is less than the amount estimated and placed in the escrow account, the escrow will be reduced to the final amount and the difference will be returned to the depositor.

   If the parties agree to the investigative findings, the amounts due to the workers will be paid by the employer. As these workers are paid and proper documentation is provided to the contract administrator, the gross amounts corresponding to the documented payments are returned to the depositor.

   1. If the employer is unable to make the payments to the workers, e.g., lacks the funds necessary, the contract administrator may make disbursements directly to the workers in the net amounts calculated by the employer. The amounts withheld from the workers for tax deduction will be returned to the employer as payments to workers are made. The employer shall be responsible for reporting and transmitting withholdings to the appropriate agencies.

2. If the employer is not cooperating in the resolution, the contract administrator shall make disbursements to the workers in accordance with the schedule of wages due. Amounts for unfound workers will be retained as described above (See 2-8(f) and 3-4(a)).

If the parties do not agree and an administrative hearing is requested, the escrow will be maintained as explained in 3-4(c), below.

Remember, if you have any questions or need assistance concerning labor standards requirements help is always available. Contact the contract administrator for the project you're working on or the HUD Field Labor Relations staff in your area.

c. **Where the parties are waiting for the outcome of an administrative hearing** that has been or will be requested contesting a final determination of wages due. The deposit shall be equal to the amount of wage restitution and liquidated damages, if applicable, that have been determined due. Once a final decision is rendered, disbursements from the escrow account are made in accordance with the decision.

3-5 ADMINISTRATIVE SANCTIONS.

Contractors and/or subcontractors that violate the labor standards provisions may face administrative sanctions imposed by HUD and/or DOL.

a. **DOL debarment.** Contractors and/or subcontractors that are found by the Secretary of Labor to be in aggravated or willful violation of the labor standards provisions of the Davis-Bacon and Related Acts (DBRA) will be ineligible (debarred) to participate in any DBRA or Davis-Bacon Act contracts for up to 3 years. Debarment includes the contractor or subcontractor and any firm, corporation, partnership or association in which the contractor or subcontractor has a substantial interest. Debarment proceedings can be recommended by the contract administrator or can be initiated by the DOL. Debarment proceedings are described in DOL regulations 29 CFR 5.12.

b. **HUD sanctions.** HUD sanctions may include Limited Denials of Participation (LDPs), debarments and suspensions.

1. **Limited Denial of Participation.** HUD may issue to the employer a limited denial of participation (LDP) which prohibits the employer from further participation in HUD programs for a period up to one year. The LDP is usually effective for the HUD program in which the violation occurred and for the geographic jurisdiction of the issuing HUD Office. HUD regulations concerning LDP's are found at 24 CFR 24.700-24.714.

2. **Debarment and suspensions.** In certain circumstances, HUD may initiate its own debarment or suspension proceedings against a contractor and/or subcontractor in connection with improper actions regarding Davis-Bacon obligations. For example, HUD may initiate debarment where a contractor has been convicted for making false statements (such as false statements on certified payrolls or other prevailing wage certifications) or may initiate suspension where a contractor has been indicted for making false statements. HUD regulations concerning debarment and suspension are found at 24 CFR Part 24.

3-6 FALSIFICATION OF CERTIFIED PAYROLL REPORTS.

Contractors and/or subcontractors that are found to have willfully falsified payroll reports (Statements of Compliance), including correction certified payroll reports, may be subject to civil or criminal prosecution. Penalties may be imposed of $1,000 and/or one year in prison for each false statement (see Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code).

Remember, if you have any questions or need assistance concerning labor standards requirements help is always available. Contact the contract administrator for the project you're working on or the HUD Field Labor Relations staff in your area.

ACRONYMS AND SYMBOLS

CDBG -	Community Development Block Grant
CFR -	Code of Federal Regulations
CPR -	Certified Payroll Report
CWHSSA -	Contract Work Hours and Safety Standards Act
DBA -	Davis-Bacon Act
DBRA -	Davis-Bacon and Related Acts
DOL -	Department of Labor
FHA -	Federal Housing Administration
FLSA -	Fair Labor Standards Act
HUD -	Housing and Urban Development (Department of)
IHA -	Indian Housing Authority
LCA -	Local Contracting Agency
LDP -	Limited Denial of Participation
O/T -	Overtime
PHA -	Public Housing Agency
S/T -	Straight-time
SAC -	State Apprenticeship Council/Agency
TDHE -	Tribally-Designated Housing Entity
§ -	Section
¶ -	Paragraph

DAVIS-BACON - RELATED WEB SITES*

HUD Office of Labor Relations:
www.hud.gov/offices/olr

HUD Regulations:
http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR

HUDClips (HUD Forms and Publications):
www.hud.gov/offices/adm/hudclips/index.cfm

DOL Davis-Bacon and Related Acts Homepage:
http://www.dol.gov/whd/contracts/dbra.htm

DOL Regulations:
http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR

Davis-Bacon Wage Decisions:
www.wdol.gov

DOL Forms:
www.dol.gov/whd/programs/dbra/forms.htm

***Web addresses active as of January 2012**

Project Wage Rate Sheet	U.S. Department of Housing and Urban Development Office of Labor Relations	

Project Name:	Wage Decision Number/Modification Number:
Project Number:	Project County:

Work Classification	Basic Hourly Rate (BHR)	Fringe Benefits	Total Hourly Wage Rate	Laborers Fringe Benefits		$
Bricklayers			$	Group #	BHR	Total Wage
Carpenters			$			$
Cement Masons			$			$
Drywall Hangers			$			$
Electricians			$			$
Iron Workers			$			$
Painters			$	Operators Fringe Benefits:		$
Plumbers			$	Group #	BHR	Total Wage
Roofers			$			$
Sheet Metal Workers			$			$
Soft Floor Workers			$			$
Tapers			$			$
Tile Setters			$	Truck Drivers Fringe Benefits:		$
Other Classifications				Group #	BHR	Total Wage
			$			
			$			
			$			

Additional Classifications (HUD Form 4230-A)					
Work Classification	Basic Hourly Rate (BHR)	Fringe Benefits	Total Hourly Wage Rate	Date of HUD Submission to DOL	Date of DOL Approval
			$		
			$		
			$		

U.S. Department of Labor
Wage and Hour Division

PAYROLL

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

U.S. Wage and Hour Division
Rev. Dec. 2008

OMB No.: 1215-0149
Expires: 12/31/2011

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐	ADDRESS	
PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION / PROJECT OR CONTRACT NO.

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT. OR RT.	(4) DAY AND DATE — HOURS WORKED EACH DAY	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS: FICA	WITH-HOLDING TAX			OTHER	TOTAL DEDUCTIONS	(9) NET WAGES PAID FOR WEEK
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE

MONTHLY EMPLOYMENT UTILIZATION REPORT

TO: _____
Name of City/County

FROM: _____
Name of Construction Contractor

NAME OF PROJECT: _____

_____
Address of Contractor

PROJECT NUMBER: _____

_____
Phone No. of Contractor

REPORTING PERIOD: _____

PERCENTAGE OF PROJECT COMPLETION: _____

CLASSIFICATION	WORK HOURS OF EMPLOYMENT									
	TOTAL	BLACK	HISPANIC	ASIAN/ PACIFIC	FEMALE	HANDICAPPED	VIETNAM VETERAN	LOW INCOME SEC. 3 RESIDENT	TEMP	FULL-TIME
CRAFTWORKER Permanent										
CRAFTWORKER New Employee										
LABORER Permanent										
LABORER New Employee										
APPRENTICE Permanent										
APPRENTICE New Employee										
TOTALS										

Number of Minority Employees on Project _____
Number of Female Employees on Project _____
Number of Low Income/Section 3 Residents on Project _____
Number of Handicapped Employees on Project _____
Number of Vietnam Veterans on Project _____

_____
Signature and Title of Company Official Completing Report Date Signed

PAYROLL DEDUCTION AUTHORIZATION

This is authorization to _____ to deduct from my paycheck

$_____. This for item number:

Repayment of:

1.	Loan	7.	Credit Union
2.	Retirement	8.	Profit Sharing
3.	Advance on Wage	9.	Donations to Agencies
4.	Savings	10.	Insurance Premiums
5.	Savings Bonds	11.	Union Dues
6.	Uniforms	12.	Other

***This deduction is to be made:**

Check Appropriate Box	
	One time only
	Weekly
	Bi-Weekly
	For _____ weeks

Employee's Signature & Date: _____

Printed or Typed Name: _____

Project Name and No.: _____

U.S. Department of Labor
Wage and Hour Division

PAYROLL

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

U.S. Wage and Hour Division
Rev. Dec. 2008

OMB No.: 1235-0008
Expires: 01/31/2015

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐	ADDRESS	
PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION / PROJECT OR CONTRACT NO.

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT. OR ST.	(4) DAY AND DATE — HOURS WORKED EACH DAY	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS: FICA	WITH-HOLDING TAX			OTHER	TOTAL DEDUCTIONS	(9) NET WAGES PAID FOR WEEK
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											
			O											
			S											

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Start. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

Federal Labor Standards Provisions

U.S. Department of Housing
and Urban Development
Office of Labor Relations

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) **Minimum Wages.** All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section l(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. **Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part

of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) **Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section l(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section l(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR 5.5 (a)(3)(i) and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. **Apprentices and Trainees.**

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the

journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 of this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than $5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable only where the amount of the prime contract exceeds $100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subpara-

graph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable only where the amount of the prime contract exceeds $100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, 40 USC 3701 et seq.

(3) The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

CONSTRUCTION IDENTIFICATION SIGN:

SIZE, 4' - 0" X 8' -0"
Letters to be brown with beige background

Construction Identification Signs To Be Erected Prior To Beginning of Actual Construction

Wood for Signs Shall Be 3/4" Waterproofing Resin Bonded Exterior Grade Plywood (Douglas Fir Plywood Association or Equal)

Payment for Furnishing, Erecting, Maintaining and Removing Construction Identification Signs Will Not Be made Directly. Such Costs Shall be Included in the Overall Bid Submitted.

To Be Erected As Indicated on Title Sheet.

Hidalgo County
Precinct 1

Hidalgo County
Precinct 1

COUNTY OF HIDALGO - PRECINCT NO. 1

PAVING & DRAINAGE IMPROVEMENTS TO:
SPANISH PALMS SUBDIVISION
2015-256-08-12-MSS

COUNTY OFFICIALS

COUNTY JUDGE	RAMON GARCIA
COMMISSIONER PCT. #1	A.C. CUELLAR
COMMISSIONER PCT. #2	EDDIE CANTU
COMMISSIONER PCT. #3	JOE FLORES
COMMISSIONER PCT. #4	JOSEPH PALACIOS

CONTRACTOR

ENGINEER

LeFEVRE
ENGINEERING &
MANAGEMENT CONSULTING, LLC

612 Nolana, Suite 520
McAllen, Texas 78504
Tel. 956.687.LEMC
Fax. 956.687.5363

Texas Registered Engineering Firm F-11722

EMPLOYEE RIGHTS
UNDER THE DAVIS-BACON ACT

FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

PREVAILING WAGES — You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.

OVERTIME — You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.

ENFORCEMENT — Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.

APPRENTICES — Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

PROPER PAY — If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

or contact the U.S. Department of Labor's Wage and Hour Division.

For additional information:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

WHD U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Employment Standards Administration | Wage and Hour Division

WH 1321(Revised April 2009)

DERECHOS DEL EMPLEADO
BAJO LA LEY DAVIS-BACON

PARA OBREROS Y MECÁNICOS EMPLEADOS EN PROYECTOS DE CONSTRUCCIÓN FEDERAL O CON ASISTENCIA FEDERAL

LA SECCIÓN DE HORAS Y SUELDOS DEL DEPARTAMENTO DE TRABAJO DE EEUU

SALARIOS PREVALECIENTES

No se le puede pagar menos de la tasa de pago indicada en la Decisión de Salarios Davis-Bacon fijada con este Aviso para el trabajo que Ud. desempeña.

SOBRETIEMPO

Se le ha de pagar no menos de tiempo y medio de su tasa básica de pago por todas las horas trabajadas en exceso de 40 en una semana laboral. Existen pocas excepciones.

CUMPLIMIENTO

Se pueden retener pagos por contratos para asegurarse que los obreros reciban los salarios y el pago de sobretiempo debidos, y se podría aplicar daños y perjuicios si no se cumple con las exigencias del pago de sobretiempo. Las cláusulas contractuales de Davis-Bacon permiten la terminación y exclusión de contratistas para efectuar futuros contratos federales hasta tres años. El contratista que falsifique los registros certificados de las nóminas de pago o induzca devoluciones de salarios puede ser sujeto a procesamiento civil o criminal, multas y/o encarcelamiento.

APRENDICES

Las tasas de aprendices sólo se aplican a aprendices correctamente inscritos bajo programas federales o estatales aprobados.

PAGO APROPIADO

Si Ud. no recibe el pago apropiado, o precisa de información adicional sobre los salarios aplicables, póngase en contacto con el Contratista Oficial que aparece abajo:

o póngase en contacto con la Sección de Horas y Sueldos del Departamento de Trabajo de EEUU.

Para obtener información adicional:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

WWW.WAGEHOUR.DOL.GOV

WHD U.S. Wage and Hour Division

Equal Employment Opportunity is
THE LAW

Private Employers, State and Local Governments, Educational Institutions, Employment Agencies and Labor Organizations

Applicants to and employees of most private employers, state and local governments, educational institutions, employment agencies and labor organizations are protected under Federal law from discrimination on the following bases:

RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN
Title VII of the Civil Rights Act of 1964, as amended, protects applicants and employees from discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, color, religion, sex (including pregnancy), or national origin. Religious discrimination includes failing to reasonably accommodate an employee's religious practices where the accommodation does not impose undue hardship.

DISABILITY
Title I and Title V of the Americans with Disabilities Act of 1990, as amended, protect qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, barring undue hardship.

AGE
The Age Discrimination in Employment Act of 1967, as amended, protects applicants and employees 40 years of age or older from discrimination based on age in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment.

SEX (WAGES)
In addition to sex discrimination prohibited by Title VII of the Civil Rights Act, as amended, the Equal Pay Act of 1963, as amended, prohibits sex discrimination in the payment of wages to women and men performing substantially equal work, in jobs that require equal skill, effort, and responsibility, under similar working conditions, in the same establishment.

GENETICS
Title II of the Genetic Information Nondiscrimination Act of 2008 protects applicants and employees from discrimination based on genetic information in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. GINA also restricts employers' acquisition of genetic information and strictly limits disclosure of genetic information. Genetic information includes information about genetic tests of applicants, employees, or their family members; the manifestation of diseases or disorders in family members (family medical history); and requests for or receipt of genetic services by applicants, employees, or their family members.

RETALIATION
All of these Federal laws prohibit covered entities from retaliating against a person who files a charge of discrimination, participates in a discrimination proceeding, or otherwise opposes an unlawful employment practice.

WHAT TO DO IF YOU BELIEVE DISCRIMINATION HAS OCCURRED
There are strict time limits for filing charges of employment discrimination. To preserve the ability of EEOC to act on your behalf and to protect your right to file a private lawsuit, should you ultimately need to, you should contact EEOC promptly when discrimination is suspected:
The U.S. Equal Employment Opportunity Commission (EEOC), 1-800-669-4000 (toll-free) or 1-800-669-6820 (toll-free TTY number for individuals with hearing impairments). EEOC field office information is available at www.eeoc.gov or in most telephone directories in the U.S. Government or Federal Government section. Additional information about EEOC, including information about charge filing, is available at www.eeoc.gov.

Employers Holding Federal Contracts or Subcontracts

Applicants to and employees of companies with a Federal government contract or subcontract are protected under Federal law from discrimination on the following bases:

RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN
Executive Order 11246, as amended, prohibits job discrimination on the basis of race, color, religion, sex or national origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

INDIVIDUALS WITH DISABILITIES
Section 503 of the Rehabilitation Act of 1973, as amended, protects qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, barring undue hardship. Section 503 also requires that Federal contractors take affirmative action to employ and advance in employment qualified individuals with disabilities at all levels of employment, including the executive level.

DISABLED, RECENTLY SEPARATED, OTHER PROTECTED, AND ARMED FORCES SERVICE MEDAL VETERANS
The Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, 38 U.S.C. 4212, prohibits job discrimination and requires affirmative action to employ and advance in employment disabled veterans, recently separated veterans (within three years of discharge or release from active duty), other protected veterans (veterans who served during a war or in a campaign or expedition for which a campaign badge has been authorized), and Armed Forces service medal veterans (veterans who, while on active duty, participated in a U.S. military operation for which an Armed Forces service medal was awarded).

RETALIATION
Retaliation is prohibited against a person who files a complaint of discrimination, participates in an OFCCP proceeding, or otherwise opposes discrimination under these Federal laws.

Any person who believes a contractor has violated its nondiscrimination or affirmative action obligations under the authorities above should contact immediately:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210, 1-800-397-6251 (toll-free) or (202) 693-1337 (TTY). OFCCP may also be contacted by e-mail at OFCCP-Public@dol.gov, or by calling an OFCCP regional or district office, listed in most telephone directories under U.S. Government, Department of Labor.

Programs or Activities Receiving Federal Financial Assistance

RACE, COLOR, NATIONAL ORIGIN, SEX
In addition to the protections of Title VII of the Civil Rights Act of 1964, as amended, Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination on the basis of race, color or national origin in programs or activities receiving Federal financial assistance. Employment discrimination is covered by Title VI if the primary objective of the financial assistance is provision of employment, or where employment discrimination causes or may cause discrimination in providing services under such programs. Title IX of the Education Amendments of 1972 prohibits employment discrimination on the basis of sex in educational programs or activities which receive Federal financial assistance.

INDIVIDUALS WITH DISABILITIES
Section 504 of the Rehabilitation Act of 1973, as amended, prohibits employment discrimination on the basis of disability in any program or activity which receives Federal financial assistance. Discrimination is prohibited in all aspects of employment against persons with disabilities who, with or without reasonable accommodation, can perform the essential functions of the job.

If you believe you have been discriminated against in a program of any institution which receives Federal financial assistance, you should immediately contact the Federal agency providing such assistance.

La igualdad de oportunidades de empleo es

LA LEY

Empleadores privados, gobiernos locales y estatales, instituciones educativas, agencias de empleo y organizaciones de trabajo

Los postulantes y empleados de la mayoría de los empleadores privados, los gobiernos locales y estatales, las instituciones educativas, las agencias de empleo y las organizaciones de trabajo están protegidos por la ley federal contra la discriminación en función de:

RAZA, COLOR, RELIGIÓN, SEXO, PROCEDENCIA
El Título VII de la Ley de Derechos Civiles (Civil Rights Act) de 1964, con sus modificaciones, protege a los postulantes y a los empleados contra la discriminación en lo que respecta a la contratación, los ascensos, los despidos, los pagos, las compensaciones adicionales, la capacitación laboral, la clasificación, las referencias y los demás aspectos del empleo, en función de raza, color, religión, sexo (incluidas las embarazadas) o procedencia. La discriminación religiosa se refiere a la falta de adaptación razonable a las prácticas religiosas de un empleado, siempre y cuando dicha adaptación no provoque una dificultad económica desmedida para la compañía.

DISCAPACIDAD
Los Títulos I y V de la Ley de Estadounidenses con Discapacidades (Americans with Disabilities Act) de 1990, con sus modificaciones, protege a las personas idóneas contra la discriminación por discapacidad en lo que respecta a la contratación, los ascensos, los despidos, los pagos, las compensaciones adicionales, la capacitación laboral, la clasificación, las referencias y los demás aspectos del empleo. La discriminación por discapacidad se refiere a la falta de adaptaciones razonables para las limitaciones físicas o mentales de una persona idónea que tiene una discapacidad y que es un postulante o un empleado, salvo que dichas adaptaciones provoquen una dificultad económica desmedida para la compañía.

EDAD
La Ley contra la Discriminación Laboral por Edad (Age Discrimination in Employment Act) de 1967, con sus modificaciones, protege a los postulantes y empleados de 40 años o más contra la discriminación por cuestiones de edad en lo que respecta a la contratación, los ascensos, los despidos, los pagos, las compensaciones adicionales, la capacitación laboral, la clasificación, las referencias y los demás aspectos del empleo.

SEXO (SALARIOS)
Además de lo establecido en el Título VII de la Ley de Derechos Civiles, con sus modificaciones, la Ley de Igualdad en las Remuneraciones (Equal Pay Act) de 1963, con sus modificaciones, también prohíbe la discriminación sexual en el pago de los salarios a las mujeres y los hombres que realicen básicamente el mismo trabajo, en empleos que requieran las mismas habilidades, esfuerzo y responsabilidad, en condiciones laborales similares, en el mismo establecimiento.

GENÉTICA
El Título II de la Ley de No Discriminación por Información Genética (Genetic Information Nondiscrimination Act, GINA) de 2008 protege a los postulantes y empleados contra la discriminación basada en la información genética en lo que respecta a la contratación, los ascensos, los despidos, los pagos, las compensaciones adicionales, la capacitación laboral, la clasificación, las referencias y los demás aspectos del empleo. La GINA también limita la adquisición de información genética por parte de los empleadores y condiciona de manera estricta su divulgación. La información genética incluye las pruebas genéticas de los postulantes, empleados o integrantes de sus familias, la manifestación de enfermedades o trastornos de los miembros de la familia (historia médica familiar) y las solicitudes o la recepción de servicios genéticos por parte de los postulantes, empleados o integrantes de sus familias.

REPRESALIAS
Todas estas leyes federales prohíben a las entidades cubiertas que tomen represalias en contra de una persona que presenta una cargo por discriminación, participa en un procedimiento por discriminación o que, de algún otro modo, se opone a una práctica laboral ilícita.

QUÉ DEBE HACER SI CONSIDERA QUE ES VÍCTIMA DE LA DISCRIMINACIÓN
Existen plazos estrictos para presentar cargos por discriminación laboral. A fin de preservar la capacidad de la Comisión para la Igualdad de Oportunidades en el Empleo (Equal Employment Opportunity Commission, EEOC) de actuar en representación suya y proteger su derecho a iniciar una demanda privada si fuese necesario en última instancia, debe comunicarse con la EEOC apenas sospeche que se produjo un hecho de discriminación: Comisión para la Igualdad de Oportunidades en el Empleo de los Estados Unidos, 1-800-669-4000 (línea gratuita) o 1-800-669-6820 (línea gratuita TTY para las personas con problemas auditivos). Puede encontrar información sobre las sucursales de la EEOC en www.eeoc.gov o en la mayoría de las guías telefónicas en la sección Gobierno Federal o Gobierno de los Estados Unidos. También puede obtener información adicional sobre la EEOC, incluso cómo presentar un cargo, en www.eeoc.gov.

Empleadores que tengan contratos o subcontratos con el gobierno federal

Los postulantes y empleados de las compañías que tengan un contrato o subcontrato con el gobierno federal están protegidos por la ley federal contra la discriminación en función de:

RAZA, COLOR, RELIGIÓN, SEXO, PROCEDENCIA
El Decreto Ejecutivo 11246, con sus modificaciones, prohíbe la discriminación en el trabajo en función de raza, color, religión, sexo o procedencia y exige que se implementen acciones afirmativas para garantizar la igualdad de oportunidades en todos los aspectos laborales.

PERSONAS CON DISCAPACIDADES
La Sección 503 de la Ley de Rehabilitación *(Rehabilitation Act)* de 1973, con sus modificaciones, protege a las personas idóneas contra la discriminación por discapacidad en lo que respecta a la contratación, los ascensos, los despidos, los pagos, las compensaciones adicionales, la capacitación laboral, la clasificación, las referencias y los demás aspectos del empleo. La discriminación por discapacidad se refiere a la falta de adaptaciones razonables para las limitaciones físicas o mentales de una persona idónea que tiene una discapacidad y que es un postulante o un empleado, salvo que dichas adaptaciones provoquen una dificultad económica desmedida para la compañía. La Sección 503 también exige que los contratistas federales implementen acciones afirmativas para emplear y avanzar en el empleo de personas idóneas con discapacidades en todos los niveles laborales, incluido el nivel ejecutivo.

VETERANOS DISCAPACITADOS, RECIÉN RETIRADOS, BAJO PROTECCIÓN Y CON MEDALLA POR SERVICIO A LAS FUERZAS ARMADAS
La Ley de Asistencia a la Readaptación de Veteranos de Vietnam *(Vietnam Era Veterans' Readjustment Assistance Act)* de 1974, con sus modificaciones, 38 U.S.C. 4212, prohíbe la discriminación laboral y exige que se implementen acciones afirmativas para emplear y avanzar en el empleo de los veteranos discapacitados, recién retirados (en el plazo de los tres años posteriores a la baja o al cese del servicio activo), otros veteranos bajo protección (los veteranos que prestaron servicio durante una guerra o en una campaña o expedición para la cual se les autorizó una insignia de campaña) y los veteranos con medalla por servicio a las Fuerzas Armadas (aquellos que durante el servicio activo, participaron en una operación militar de los Estados Unidos por la cual se los reconoció con una medalla por servicio a las Fuerzas Armadas).

REPRESALIAS
Quedan prohibidas las represalias contra una persona que presenta una demanda por discriminación, participa en un procedimiento de la Oficina de Programas de Cumplimiento de Contratos Federales (*Office of Federal Contract Compliance Programs*, OFCCP) o que se oponga, de algún otro modo, a la discriminación según estas leyes federales.

Toda persona que considere que un contratista violó sus obligaciones de acción afirmativa o no discriminación según las autoridades mencionadas anteriormente debe comunicarse de inmediato con:

La Oficina de Programas de Cumplimiento de Contratos Federales (OFCCP), Departamento de Trabajo de los Estados Unidos, 200 Constitution Avenue, N.W., Washington, D.C. 20210, teléfono 1-800-397-6251 (línea gratuita) o (202) 693-1337 (línea TTY). También puede enviar un mensaje de correo electrónico a la OFCCP (OFCCP-Public@dol.gov) o bien, llamar a una de sus oficinas regionales o del distrito, las cuales aparecen en la mayoría de las guías telefónicas en la sección Gobierno de los Estados Unidos, Departamento de Trabajo.

Programas o actividades que reciben asistencia financiera federal

RAZA, COLOR, PROCEDENCIA, SEXO
Además de las protecciones establecidas en el Título VII de la Ley de Derechos Civiles de 1964 y sus modificaciones, el Título VI de dicha ley, con sus modificaciones, prohíbe la discriminación por raza, color o procedencia en los programas o las actividades que reciban asistencia financiera federal. La discriminación laboral está cubierta por el Título VI si el objetivo principal de la asistencia financiera es brindar empleo, o si la discriminación laboral provoca o puede provocar discriminación cuando se proporcionan los servicios de dichos programas. El Título IX de las Reformas Educativas de 1972 prohíbe la discriminación laboral según el sexo en los programas o las actividades educativas que reciben asistencia financiera federal.

PERSONAS CON DISCAPACIDADES
La Sección 504 de la Ley de Rehabilitación de 1973, con sus modificaciones, prohíbe la discriminación laboral por discapacidad en cualquier programa o actividad que reciba asistencia financiera federal. Queda prohibida la discriminación en todos los aspectos laborales contra las personas discapacitadas que, con o sin adaptaciones razonables, pueden desempeñar las funciones esenciales del trabajo.

Si cree que ha sido víctima de discriminación en algún programa de una institución que reciba asistencia financiera federal, debe comunicarse de inmediato con la agencia federal que brinda dicha asistencia.

EMPLOYEE RIGHTS AND RESPONSIBILITIES
UNDER THE FAMILY AND MEDICAL LEAVE ACT

Basic Leave Entitlement
FMLA requires covered employers to provide up to 12 weeks of unpaid, job-protected leave to eligible employees for the following reasons:

- For incapacity due to pregnancy, prenatal medical care or child birth;
- To care for the employee's child after birth, or placement for adoption or foster care;
- To care for the employee's spouse, son or daughter, or parent, who has a serious health condition; or
- For a serious health condition that makes the employee unable to perform the employee's job.

Military Family Leave Entitlements
Eligible employees with a spouse, son, daughter, or parent on active duty or call to active duty status in the National Guard or Reserves in support of a contingency operation may use their 12-week leave entitlement to address certain qualifying exigencies. Qualifying exigencies may include attending certain military events, arranging for alternative childcare, addressing certain financial and legal arrangements, attending certain counseling sessions, and attending post-deployment reintegration briefings.

FMLA also includes a special leave entitlement that permits eligible employees to take up to 26 weeks of leave to care for a covered servicemember during a single 12-month period. A covered servicemember is a current member of the Armed Forces, including a member of the National Guard or Reserves, who has a serious injury or illness incurred in the line of duty on active duty that may render the servicemember medically unfit to perform his or her duties for which the servicemember is undergoing medical treatment, recuperation, or therapy; or is in outpatient status; or is on the temporary disability retired list.

Benefits and Protections
During FMLA leave, the employer must maintain the employee's health coverage under any "group health plan" on the same terms as if the employee had continued to work. Upon return from FMLA leave, most employees must be restored to their original or equivalent positions with equivalent pay, benefits, and other employment terms.

Use of FMLA leave cannot result in the loss of any employment benefit that accrued prior to the start of an employee's leave.

Eligibility Requirements
Employees are eligible if they have worked for a covered employer for at least one year, for 1,250 hours over the previous 12 months, and if at least 50 employees are employed by the employer within 75 miles.

Definition of Serious Health Condition
A serious health condition is an illness, injury, impairment, or physical or mental condition that involves either an overnight stay in a medical care facility, or continuing treatment by a health care provider for a condition that either prevents the employee from performing the functions of the employee's job, or prevents the qualified family member from participating in school or other daily activities.

Subject to certain conditions, the continuing treatment requirement may be met by a period of incapacity of more than 3 consecutive calendar days combined with at least two visits to a health care provider or one visit and a regimen of continuing treatment, or incapacity due to pregnancy, or incapacity due to a chronic condition. Other conditions may meet the definition of continuing treatment.

Use of Leave
An employee does not need to use this leave entitlement in one block. Leave can be taken intermittently or on a reduced leave schedule when medically necessary. Employees must make reasonable efforts to schedule leave for planned medical treatment so as not to unduly disrupt the employer's operations. Leave due to qualifying exigencies may also be taken on an intermittent basis.

Substitution of Paid Leave for Unpaid Leave
Employees may choose or employers may require use of accrued paid leave while taking FMLA leave. In order to use paid leave for FMLA leave, employees must comply with the employer's normal paid leave policies.

Employee Responsibilities
Employees must provide 30 days advance notice of the need to take FMLA leave when the need is foreseeable. When 30 days notice is not possible, the employee must provide notice as soon as practicable and generally must comply with an employer's normal call-in procedures.

Employees must provide sufficient information for the employer to determine if the leave may qualify for FMLA protection and the anticipated timing and duration of the leave. Sufficient information may include that the employee is unable to perform job functions, the family member is unable to perform daily activities, the need for hospitalization or continuing treatment by a health care provider, or circumstances supporting the need for military family leave. Employees also must inform the employer if the requested leave is for a reason for which FMLA leave was previously taken or certified. Employees also may be required to provide a certification and periodic recertification supporting the need for leave.

Employer Responsibilities
Covered employers must inform employees requesting leave whether they are eligible under FMLA. If they are, the notice must specify any additional information required as well as the employees' rights and responsibilities. If they are not eligible, the employer must provide a reason for the ineligibility.

Covered employers must inform employees if leave will be designated as FMLA-protected and the amount of leave counted against the employee's leave entitlement. If the employer determines that the leave is not FMLA-protected, the employer must notify the employee.

Unlawful Acts by Employers
FMLA makes it unlawful for any employer to:

- Interfere with, restrain, or deny the exercise of any right provided under FMLA;
- Discharge or discriminate against any person for opposing any practice made unlawful by FMLA or for involvement in any proceeding under or relating to FMLA.

Enforcement
An employee may file a complaint with the U.S. Department of Labor or may bring a private lawsuit against an employer.

FMLA does not affect any Federal or State law prohibiting discrimination, or supersede any State or local law or collective bargaining agreement which provides greater family or medical leave rights.

FMLA section 109 (29 U.S.C. § 2619) requires FMLA covered employers to post the text of this notice. Regulations 29 C.F.R. § 825.300(a) may require additional disclosures.

For additional information:
1-866-4US-WAGE (1-866-487-9243) TTY: 1-877-889-5627
WWW.WAGEHOUR.DOL.GOV

U.S. Wage and Hour Division

U.S. Department of Labor | Employment Standards Administration | Wage and Hour Division

WHD Publication 1420 Revised January 2009

EMPLOYEE RIGHTS
UNDER THE FAIR LABOR STANDARDS ACT
THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE
$7.25 PER HOUR
BEGINNING JULY 24, 2009

OVERTIME PAY At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than
- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT Employers of "tipped employees" must pay a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to $1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to $11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to $50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to $100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION
- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid $4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:

1-866-4-USWAGE (1-866-487-9243) TTY: 1-877-889-5627

WHD U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

WHD Publication 1088 (Revised July 2009)

DERECHOS DEL EMPLEADO
BAJO LA LEY DE NORMAS JUSTAS DE TRABAJO

SECCIÓN DE HORAS Y SUELDOS DEL DEPARTAMENTO DE TRABAJO DE EEUU

SALARIO MÍNIMO FEDERAL
$7.25 POR HORA

A PARTIR DEL 24 DE JULIO DE 2009

PAGO DE SOBRETIEMPO

Por lo menos tiempo y medio (1½) de su tasa regular de pago por todas las horas trabajadas en exceso de 40 en una semana laboral.

EMPLEO DE MENORES DE EDAD

El empleado ha de tener por lo menos **16** años de edad para trabajar en la mayoría de los trabajos no agrícolas y por lo menos tener **18** años para trabajar en trabajos no agrícolas declarados arriesgados por el/la Secretario(a) de Trabajo.

Jóvenes de **14** y **15** años de edad pueden trabajar fuera de horas escolares en varios trabajos que no sean en fabricación, minería, o arriesgados, bajo las siguientes condiciones:

No más de
- **3** horas en un día escolar o **18** horas en una semana escolar;
- **8** horas en un día no escolar o **40** horas en una semana no escolar.

Además, el trabajo no puede empezar antes de las **7 de la mañana** o terminar después de las **7 de la tarde** salvo del primero de junio hasta el Día de Labor, cuando las horas de la tarde se extienden hasta las **9 de la noche.** Se aplican reglas distintas al empleo agrícola.

CRÉDITO POR PROPINAS

Empresarios de empleados que reciben propinas han de pagar un salario en efectivo de por lo menos $2.13 por hora si declaran un crédito por propina contra sus obligaciones hacia el salario mínimo. Si las propinas del empleado combinadas con el salario en efectivo que paga el empresario de por lo menos $2.13 por hora no equivalen al salario mínimo por hora, el empresario ha de suplir la diferencia. También se tiene que cumplir con otras condiciones.

CUMPLIMIENTO

El Departamento de Trabajo puede recuperar salarios atrasados administrativamente o mediante acción legal en los tribunales, para empleados a los cuales se les haya pagado por debajo y en violación de la ley.

A los empresarios se les puede imponer penas pecuniarias civiles de hasta $1,100 por cada infracción intencional o repetida de las provisiones de la ley del pago del salario mínimo y del pago de sobretiempo y hasta $11,000 por cada empleado que sea empleado en violación de las provisiones de la ley sobre el empleo de menores. Adicionalmente, se puede imponer una pena pecuniaria civil de hasta $50,000 por cada infracción de las provisiones sobre el empleo de menores si causa la muerte o una lesión seria de un empleado menor de edad, y se pueden doblar dichas avaluaciones, hasta $100,000, cuando se determinan que las infracciones son intencionales o repetidas. La ley también prohíbe la discriminación o el despido del trabajador por haber presentado una denuncia o por participar en cualquier procedimiento bajo la Ley.

INFORMACIÓN ADICIONAL

- Ciertas ocupaciones y ciertos establecimientos están exentos de las provisiones de pago de salario mínimo y de sobretiempo.
- Se aplican provisiones especiales a trabajadores de Samoa Americana y de la Comunidad de las Islas Marianas del Norte.
- Algunas leyes estatales proveen más protecciones al empleado; el empresario ha de cumplir con ambas.
- La ley exige que los empresarios pongan este cartel donde los empleados lo puedan ver fácilmente.
- A los empleados menores de 20 años de edad se les puede pagar menos de $4.25 por hora durante los primeros 90 días civiles consecutivos de empleo con un empresario.
- Se les puede pagar menos del salario mínimo bajo ciertos certificados especiales emitidos por el Departamento de Trabajo a ciertos estudiantes de tiempo completo, estudiantes aprendices y a trabajadores con impedimentos.

Para información adicional:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

WHD 1088SPA (Revised July 2009)

HUD Compliance and Monitoring?

HUD monitors the performance of recipients and contractors. HUD examines employment and contract records for evidence of actions taken to train and employ Section 3 residents and to award contracts to Section 3 businesses. HUD provides technical assistance to recipients and contractors in order to obtain compliance with Section 3 requirements.

What if it appears that an entity is not complying with Section 3?

There is a complaint process. Section 3 residents and business concerns may file complaints if they think a violation of Section 3 requirements has occurred where a HUD-funded project is planned or underway. Complaints will be investigated; if appropriate, voluntary resolutions will be sought. There are appeal rights to the Secretary. Section 3 residents and businesses may also seek judicial relief.

How can Section 3 businesses or residents complain about a violation of Section 3 requirements?

They can file a complaint in writing to the local HUD FHEO Office or to:

The Assistant Secretary for Fair Housing and Equal Opportunity
U.S. Department of Housing and Urban Development
451 Seventh Street, SW, Room 5100
Washington, DC 20410-2000
1-800-669-9777
1-800-927-9276 (TTY)
www.hud.gov www.espanol.hud.gov

A written compliant should contain:

1. Name and address of the person filing the complaint;
2. Name and address of subject of complaint (HUD recipient or contractor);
3. Description of acts or omissions in alleged violation of Section 3;
4. Statement of corrective actions sought.

[redacted]

04736

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Section 3 Economic Opportunity

A Piece of the American Dream



U.S. Department of Housing and Urban Development

Fair Housing and Equal Opportunity

April 2006
HUD-1476-FHEO Rev 2
OMB Approval Number 2529-0043 (exp. 8/31/2007)
Previous Editions are Obsolete

Section 3 Act

Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) (as amended), requires that economic opportunities generated by certain HUD financial assistance for housing (including Public and Indian Housing) and community development programs shall, to the greatest extent feasible, be given to low and very low-income persons, particularly those who are recipients of government assistance for housing, and to businesses that provide economic opportunities for these persons.

Other HUD programs covered by Section 3 (to distinguish between HUD Public and Indian housing programs) are those that provide housing or community development assistance for housing rehabilitation, housing construction, or other public construction project.

Who are Section 3 residents?

Public housing residents including persons with disabilities.

Low and very low income persons who live in the area where a HUD assisted projected is located.

What is a Section 3 business?

A section 3 business is one:

That is owned by Section 3 residents
Employs Section 3 residents or;
Subcontracts with businesses that provide opportunities to low and very low income persons.

What types of Economic Opportunities are available under Section 3?

- ✓ Jobs and Employment opportunities
- ✓ Training and Educational opportunities
- ✓ Contracts and Business opportunities

Who will provide the Economic Opportunities?

Recipients of HUD financial assistance and their contractors and subcontractors are expected to develop a Section 3 Plan to assure that economic opportunities to the greatest extent feasible, are provided to low and very low-income persons and to qualified Section 3 businesses. One element of that Plan is the use of a Section 3 clause which indicates that all work performed under the contract are subject to the requirements of Section 3.

Who receives Economic Opportunities under Section 3?

For training and employment:

- ✓ persons in public and assisted housing;
- ✓ persons in the affected project neighborhood;
- ✓ participants in HUD Youth-build programs;
- ✓ homeless persons.

For contracting:

- ✓ businesses which fit the definition of a Section 3 business.

How can individuals and businesses find out more about Section 3?

Contact the Fair Housing and Equal Opportunity representative at your nearest HUD Office.

APPENDIX TO PART 135

AUTHORITY: 12 U.S.C. 1701u; 42 U.S.C. 3535(d).

SOURCE: 59 FR 33880, June 30, 1994, unless otherwise noted.

EFFECTIVE DATE NOTE: At 59 FR 33880, June 30, 1994, part 135 was revised effective August 1, 1994 through June 30, 1995. At 60 FR 28325, May 31, 1995, the effective period was extended until the final rule implementing changes made to section 3 of the Housing and Urban Development Act of 1968 by the Housing and Community Development Act of 1992 is published and becomes effective.

Subpart A—General Provisions

§ 135.1 Purpose.

(a) *Section 3.* The purpose of section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) (section 3) is to ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons.

(b) *Part 135.* The purpose of this part is to establish the standards and procedures to be followed to ensure that the objectives of section 3 are met.

§ 135.2 Effective date of regulation.

The regulations of this part will remain in effect until the date the final rule adopting the regulations of this part with or without changes is published and becomes effective, at which point the final rule will remain in effect.

[60 FR 28326, May 31, 1995]

§ 135.3 Applicability.

(a) *Section 3 covered assistance.* Section 3 applies to the following HUD assistance (section 3 covered assistance):

(1) *Public and Indian housing assistance.* Section 3 applies to training, employment, contracting and other economic opportunities arising from the expenditure of the following public and Indian housing assistance:

(i) Development assistance provided pursuant to section 5 of the U.S. Housing Act of 1937 (1937 Act);

(ii) Operating assistance provided pursuant to section 9 of the 1937 Act; and

(iii) Modernization assistance provided pursuant to section 14 of the 1937 Act;

(2) *Housing and community development assistance.* Section 3 applies to training, employment, contracting and other economic opportunities arising in connection with the expenditure of housing assistance (including section 8 assistance, and including other housing assistance not administered by the Assistant Secretary of Housing) and community development assistance that is used for the following projects;

(i) Housing rehabilitation (including reduction and abatement of lead-based paint hazards, but excluding routine maintenance, repair and replacement);

(ii) Housing construction; and

(iii) Other public construction.

(3) *Thresholds*—(i) *No thresholds for section 3 covered public and Indian housing assistance.* The requirements of this part apply to section 3 covered assistance provided to recipients, notwithstanding the amount of the assistance provided to the recipient. The requirements of this part apply to all contractors and subcontractors performing work in connection with projects and activities funded by public and Indian housing assistance covered by section 3, regardless of the amount of the contract or subcontract.

(ii) *Thresholds for section 3 covered housing and community development assistance*—(A) *Recipient thresholds.* The requirements of this part apply to recipients of other housing and community development program assistance for a section 3 covered project(s) for which the amount of the assistance exceeds $200,000.

(B) *Contractor and subcontractor thresholds.* The requirements of this part apply to contractors and subcontractors performing work on section 3 covered project(s) for which the amount of the assistance exceeds $200,000; and the contract or subcontract exceeds $100,000.

(C) *Threshold met for recipients, but not contractors or subcontractors.* If a recipient receives section 3 covered housing or community development assistance in excess of $200,000, but no contract exceeds $100,000, the section 3 preference requirements only apply to the recipient.

(b) *Applicability of section 3 to entire project or activity funded with section 3 assistance.* The requirements of this part apply to the entire project or activity that is funded with section 3 covered assistance, regardless of whether the section 3 activity is fully or partially funded with section 3 covered assistance.

(c) *Applicability to Indian housing authorities and Indian tribes.* Indian housing authorities and tribes that receive HUD assistance described in paragraph (a) of this section shall comply with the procedures and requirements of this part to the maximum extent consistent with, but not in derogation of, compliance with section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)). (See 24 CFR part 905.)

(d) *Other HUD assistance and other Federal assistance.* Recipients, contractors and subcontractors that receive HUD assistance, not listed in paragraph (a) of this section, or other Federal assistance, are encouraged to provide, to the greatest extent feasible, training, employment, and contracting opportunities generated by the expenditure of this assistance to low- and very low-income persons, and business concerns owned by low- and very low-income persons, or which employ low- and very low-income persons.

§ 135.5 Definitions.

The terms *Department, HUD, Indian housing authority (IHA), Public housing agency (PHA),* and *Secretary* are defined in 24 CFR part 5.

Annual Contributions Contract (ACC) means the contract under the U.S. Housing Act of 1937 (1937 Act) between HUD and the PHA, or between HUD and the IHA, that contains the terms and conditions under which HUD assists the PHA or the IHA in providing decent, safe, and sanitary housing for low income families. The ACC must be in a form prescribed by HUD under which HUD agrees to provide assistance in the development, modernization and/or operation of a low income housing project under the 1937 Act, and the PHA or IHA agrees to develop, modernize and operate the project in compliance with all provisions of the ACC and the 1937 Act, and all HUD regulations and implementing requirements and procedures. (The ACC is not a form of procurement contract.)

Applicant means any entity which makes an application for section 3 covered assistance, and includes, but is not limited to, any State, unit of local government, public housing agency, Indian housing authority, Indian tribe, or other public body, public or private nonprofit organization, private agency or institution, mortgagor, developer, limited dividend sponsor, builder, property manager, community housing development organization (CHDO), resident management corporation, resident council, or cooperative association.

Assistant Secretary means the Assistant Secretary for Fair Housing and Equal Opportunity.

Business concern means a business entity formed in accordance with State law, and which is licensed under State, county or municipal law to engage in the type of business activity for which it was formed.

Business concern that provides economic opportunities for low- and very low-income persons. See definition of "section 3 business concern" in this section.

Contract. See the definition of "section 3 covered contract" in this section.

Contractor means any entity which contracts to perform work generated by the expenditure of section 3 covered assistance, or for work in connection with a section 3 covered project.

Employment opportunities generated by section 3 covered assistance means all employment opportunities generated by the expenditure of section 3 covered public and Indian housing assistance (i.e., operating assistance, development assistance and modernization assistance, as described in §135.3(a)(1)). With respect to section 3 covered housing and community development assistance, this term means all employment opportunities arising in connection

with section 3 covered projects (as described in §135.3(a)(2)), including management and administrative jobs connected with the section 3 covered project. Management and administrative jobs include architectural, engineering or related professional services required to prepare plans, drawings, specifications, or work write-ups; and jobs directly related to administrative support of these activities, e.g., construction manager, relocation specialist, payroll clerk, etc.

Housing authority (HA) means, collectively, public housing agency and Indian housing authority.

Housing and community development assistance means any financial assistance provided or otherwise made available through a HUD housing or community development program through any grant, loan, loan guarantee, cooperative agreement, or contract, and includes community development funds in the form of community development block grants, and loans guaranteed under section 108 of the Housing and Community Development Act of 1974, as amended. Housing and community development assistance does not include financial assistance provided through a contract of insurance or guaranty.

Housing development means low-income housing owned, developed, or operated by public housing agencies or Indian housing authorities in accordance with HUD's public and Indian housing program regulations codified in 24 CFR Chapter IX.

HUD Youthbuild programs mean programs that receive assistance under subtitle D of Title IV of the National Affordable Housing Act, as amended by the Housing and Community Development Act of 1992 (42 U.S.C. 12899), and provide disadvantaged youth with opportunities for employment, education, leadership development, and training in the construction or rehabilitation of housing for homeless individuals and members of low- and very low-income families.

Indian tribes shall have the meaning given this term in 24 CFR part 571.

JTPA means the Job Training Partnership Act (29 U.S.C. 1579(a)).

Low-income person. See the definition of "section 3 resident" in this section.

Metropolitan area means a metropolitan statistical area (MSA), as established by the Office of Management and Budget.

Neighborhood area means:

(1) For HUD housing programs, a geographical location within the jurisdiction of a unit of general local government (but not the entire jurisdiction) designated in ordinances, or other local documents as a neighborhood, village, or similar geographical designation.

(2) For HUD community development programs, see the definition, if provided, in the regulations for the applicable community development program, or the definition for this term in 24 CFR 570.204(c)(1).

New hires mean full-time employees for permanent, temporary or seasonal employment opportunities.

Nonmetropolitan county means any county outside of a metropolitan area.

Other HUD programs means HUD programs, other than HUD public and Indian housing programs, that provide housing and community development assistance for "section 3 covered projects," as defined in this section.

Public housing resident has the meaning given this term in 24 CFR part 963.

Recipient means any entity which receives section 3 covered assistance, directly from HUD or from another recipient and includes, but is not limited to, any State, unit of local government, PHA, IHA, Indian tribe, or other public body, public or private nonprofit organization, private agency or institution, mortgagor, developer, limited dividend sponsor, builder, property manager, community housing development organization, resident management corporation, resident council, or cooperative association. Recipient also includes any successor, assignee or transferee of any such entity, but does not include any ultimate beneficiary under the HUD program to which section 3 applies and does not include contractors.

Section 3 means section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u).

Section 3 business concern means a business concern, as defined in this section—

(1) That is 51 percent or more owned by section 3 residents; or

(2) Whose permanent, full-time employees include persons, at least 30 percent of whom are currently section 3 residents, or within three years of the date of first employment with the business concern were section 3 residents; or

(3) That provides evidence of a commitment to subcontract in excess of 25 percent of the dollar award of all subcontracts to be awarded to business concerns that meet the qualifications set forth in paragraphs (1) or (2) in this definition of "section 3 business concern."

Section 3 clause means the contract provisions set forth in § 135.38.

Section 3 covered activity means any activity which is funded by section 3 covered assistance public and Indian housing assistance.

Section 3 covered assistance means: (1) Public and Indian housing development assistance provided pursuant to section 5 of the 1937 Act;

(2) Public and Indian housing operating assistance provided pursuant to section 9 of the 1937 Act;

(3) Public and Indian housing modernization assistance provided pursuant to section 14 of the 1937 Act;

(4) Assistance provided under any HUD housing or community development program that is expended for work arising in connection with:

(i) Housing rehabilitation (including reduction and abatement of lead-based paint hazards, but excluding routine maintenance, repair and replacement);

(ii) Housing construction; or

(iii) Other public construction project (which includes other buildings or improvements, regardless of ownership).

Section 3 covered contract means a contract or subcontract (including a professional service contract) awarded by a recipient or contractor for work generated by the expenditure of section 3 covered assistance, or for work arising in connection with a section 3 covered project. "Section 3 covered contracts" do not include contracts awarded under HUD's procurement program, which are governed by the Federal Acquisition Regulation System (see 48 CFR, Chapter 1). "Section 3 covered contracts" also do not include contracts for the purchase of supplies and materials. However, whenever a contract for materials includes the installation of the materials, the contract constitutes a section 3 covered contract. For example, a contract for the purchase and installation of a furnace would be a section 3 covered contract because the contract is for work (i.e., the installation of the furnace) and thus is covered by section 3.

Section 3 covered project means the construction, reconstruction, conversion or rehabilitation of housing (including reduction and abatement of lead-based paint hazards), other public construction which includes buildings or improvements (regardless of ownership) assisted with housing or community development assistance.

Section 3 joint venture. See § 135.40.

Section 3 resident means: (1) A public housing resident; or

(2) An individual who resides in the metropolitan area or nonmetropolitan county in which the section 3 covered assistance is expended, and who is:

(i) *A low-income person,* as this term is defined in section 3(b)(2) of the 1937 Act (42 U.S.C. 1437a(b)(2)). Section 3(b)(2) of the 1937 Act defines this term to mean families (including single persons) whose incomes do not exceed 80 per centum of the median income for the area, as determined by the Secretary, with adjustments for smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 80 per centum of the median for the area on the basis of the Secretary's findings that such variations are necessary because of prevailing levels of construction costs or unusually high or low-income families; or

(ii) *A very low-income person,* as this term is defined in section 3(b)(2) of the 1937 Act (42 U.S.C. 1437a(b)(2)). Section 3(b)(2) of the 1937 Act (42 U.S.C. 1437a(b)(2)) defines this term to mean families (including single persons) whose incomes do not exceed 50 per centum of the median family income for the area, as determined by the Secretary with adjustments for smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 50 per centum of the median for the area on the basis of the Secretary's findings that

such variations are necessary because of unusually high or low family incomes.

(3) A person seeking the training and employment preference provided by section 3 bears the responsibility of providing evidence (if requested) that the person is eligible for the preference.

Section 8 assistance means assistance provided under section 8 of the 1937 Act (42 U.S.C. 1437f) pursuant to 24 CFR part 882, subpart G.

Service area means the geographical area in which the persons benefitting from the section 3 covered project reside. The service area shall not extend beyond the unit of general local government in which the section 3 covered assistance is expended. In HUD's Indian housing programs, the service area, for IHAs established by an Indian tribe as a result of the exercise of the tribe's sovereign power, is limited to the area of tribal jurisdiction.

Subcontractor means any entity (other than a person who is an employee of the contractor) which has a contract with a contractor to undertake a portion of the contractor's obligation for the performance of work generated by the expenditure of section 3 covered assistance, or arising in connection with a section 3 covered project.

Very low-income person. See the definition of "section 3 resident" in this section.

Youthbuild programs. See the definition of "HUD Youthbuild programs" in this section.

[59 FR 33880, June 30, 1994, as amended at 61 FR 5206, Feb. 9, 1996]

§ 135.7 Delegation of authority.

Except as may be otherwise provided in this part, the functions and responsibilities of the Secretary under section 3, and described in this part, are delegated to the Assistant Secretary for Fair Housing and Equal Opportunity. The Assistant Secretary is further authorized to redelegate functions and responsibilities to other employees of HUD; *provided however*, that the authority to issue rules and regulations under this part, which authority is delegated to the Assistant Secretary, may not be redelegated by the Assistant Secretary.

§ 135.9 Requirements applicable to HUD NOFAs for section 3 covered programs.

(a) *Certification of compliance with part 135.* All notices of funding availability (NOFAs) issued by HUD that announce the availability of funding covered by section 3 shall include a provision in the NOFA that notifies applicants that section 3 and the regulations in part 135 are applicable to funding awards made under the NOFA. Additionally the NOFA shall require as an application submission requirement (which may be specified in the NOFA or application kit) a certification by the applicant that the applicant will comply with the regulations in part 135. (For PHAs, this requirement will be met where a PHA Resolution in Support of the Application is submitted.) With respect to application evaluation, HUD will accept an applicant's certification unless there is evidence substantially challenging the certification.

(b) *Statement of purpose in NOFAs.* (1) For competitively awarded assistance in which the grants are for activities administered by an HA, and those activities are anticipated to generate significant training, employment or contracting opportunities, the NOFA must include a statement that one of the purposes of the assistance is to give to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, job training, employment, contracting and other economic opportunities to section 3 residents and section 3 business concerns.

(2) For competitively awarded assistance involving housing rehabilitation, construction or other public construction, where the amount awarded to the applicant may exceed $200,000, the NOFA must include a statement that one of the purposes of the assistance is to give, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, job training, employment, contracting and other economic opportunities to section 3 residents and section 3 business concerns.

(c) *Section 3 as NOFA evaluation criteria.* Where not otherwise precluded by statute, in the evaluation of applications for the award of assistance, consideration shall be given to the extent to which an applicant has demonstrated that it will train and employ section 3 residents and contract with section 3 business concerns for economic opportunities generated in connection with the assisted project or activity. The evaluation criteria to be utilized, and the rating points to be assigned, will be specified in the NOFA.

§ 135.11 Other laws governing training, employment, and contracting.

Other laws and requirements that are applicable or may be applicable to the economic opportunities generated from the expenditure of section 3 covered assistance include, but are not necessarily limited to those listed in this section.

(a) *Procurement standards for States and local governments (24 CFR 85.36)*—(1) *General.* Nothing in this part 135 prescribes specific methods of procurement. However, neither section 3 nor the requirements of this part 135 supersede the general requirement of 24 CFR 85.36(c) that all procurement transactions be conducted in a competitive manner. Consistent with 24 CFR 85.36(c)(2), section 3 is a Federal statute that expressly encourages, to the maximum extent feasible, a geographic preference in the evaluation of bids or proposals.

(2) *Flexible Subsidy Program.* Multifamily project mortgagors in the Flexible Subsidy Program are not required to utilize the methods of procurement in 24 CFR 85.36(d), and are not permitted to utilize methods of procurement that would result in their award of a contract to a business concern that submits a bid higher than the lowest responsive bid. A multifamily project mortgagor, however, must ensure that, to the greatest extent feasible, the procurement practices it selects provide preference to section 3 business concerns.

(b) *Procurement standards for other recipients (OMB Circular No. A–110).* Nothing in this part prescribes specific methods of procurement for grants and other agreements with institutions of higher education, hospitals, and other nonprofit organizations. Consistent with the requirements set forth in OMB Circular No. A–110, section 3 is a Federal statute that expressly encourages a geographic preference in the evaluation of bids or proposals.

(c) *Federal labor standards provisions.* Certain construction contracts are subject to compliance with the requirement to pay prevailing wages determined under Davis-Bacon Act (40 U.S.C. 276a—276a–7) and implementing U.S. Department of Labor regulations in 29 CFR part 5. Additionally, certain HUD-assisted rehabilitation and maintenance activities on public and Indian housing developments are subject to compliance with the requirement to pay prevailing wage rates, as determined or adopted by HUD, to laborers and mechanics employed in this work. Apprentices and trainees may be utilized on this work only to the extent permitted under either Department of Labor regulations at 29 CFR part 5 or for work subject to HUD-determined prevailing wage rates, HUD policies and guidelines. These requirements include adherence to the wage rates and ratios of apprentices or trainees to journeymen set out in "approved apprenticeship and training programs," as described in paragraph (d) of this section.

(d) *Approved apprenticeship and trainee programs.* Certain apprenticeship and trainee programs have been approved by various Federal agencies. Approved apprenticeship and trainee programs include: an apprenticeship program approved by the Bureau of Apprenticeship and Training of the Department of Labor, or a State Apprenticeship Agency, or an on-the-job training program approved by the Bureau of Apprenticeship and Training, in accordance with the regulations at 29 CFR part 5; or a training program approved by HUD in accordance with HUD policies and guidelines, as applicable. Participation in an approved apprenticeship program does not, in and of itself, demonstrate compliance with the regulations of this part.

(e) *Compliance with Executive Order 11246.* Certain contractors covered by this part are subject to compliance with Executive Order 11246, as amended

by Executive Order 12086, and the Department of Labor regulations issued pursuant thereto (41 CFR chapter 60) which provide that no person shall be discriminated against on the basis of race, color, religion, sex, or national origin in all phases of employment during the performance of Federal or Federally assisted construction contracts.

Subpart B—Economic Opportunities for Section 3 Residents and Section 3 Business Concerns

§ 135.30 Numerical goals for meeting the greatest extent feasible requirement.

(a) *General.* (1) Recipients and covered contractors may demonstrate compliance with the "greatest extent feasible" requirement of section 3 by meeting the numerical goals set forth in this section for providing training, employment, and contracting opportunities to section 3 residents and section 3 business concerns.

(2) The goals established in this section apply to the entire amount of section 3 covered assistance awarded to a recipient in any Federal Fiscal Year (FY), commencing with the first FY following the effective date of this rule.

(3) For recipients that do not engage in training, or hiring, but award contracts to contractors that will engage in training, hiring, and subcontracting, recipients must ensure that, to the greatest extent feasible, contractors will provide training, employment, and contracting opportunities to section 3 residents and section 3 business concerns.

(4) The numerical goals established in this section represent minimum numerical targets.

(b) *Training and employment.* The numerical goals set forth in paragraph (b) of this section apply to new hires. The numerical goals reflect the aggregate hires. Efforts to employ section 3 residents, to the greatest extent feasible, should be made at all job levels.

(1) *Numerical goals for section 3 covered public and Indian housing programs.* Recipients of section 3 covered public and Indian housing assistance (as described in §135.5) and their contractors and subcontractors may demonstrate compliance with this part by committing to employ section 3 residents as:

(i) 10 percent of the aggregate number of new hires for the one year period beginning in FY 1995;

(ii) 20 percent of the aggregate number of new hires for the one period beginning in FY 1996;

(iii) 30 percent of the aggregate number of new hires for one year period beginning in FY 1997 and continuing thereafter.

(2) *Numerical goals for other HUD programs covered by section 3.* (i) Recipients of section 3 covered housing assistance provided under other HUD programs, and their contractors and subcontractors (unless the contract or subcontract awards do not meet the threshold specified in §135.3(a)(3)) may demonstrate compliance with this part by committing to employ section 3 residents as 10 percent of the aggregate number of new hires for each year over the duration of the section 3 project;

(ii) Where a managing general partner or management agent is affiliated, in a given metropolitan area, with recipients of section 3 covered housing assistance, for an aggregate of 500 or more units in any fiscal year, the managing partner or management agent may demonstrate compliance with this part by committing to employ section 3 residents as:

(A) 10 percent of the aggregate number of new hires for the one year period beginning in FY 1995;

(B) 20 percent of the aggregate number of new hires for the one year period beginning in FY 1996;

(C) 30 percent of the aggregate number of new hires for the one year period beginning in FY 1997, and continuing thereafter.

(3) Recipients of section 3 covered community development assistance, and their contractors and subcontractors (unless the contract or subcontract awards do not meet the threshold specified in §135.3(a)(3)) may demonstrate compliance with the requirements of this part by committing to employ section 3 residents as:

(i) 10 percent of the aggregate number of new hires for the one year period beginning in FY 1995;

(ii) 20 percent of the aggregate number of new hires for the one year period beginning in FY 1996; and

(iii) 30 percent of the aggregate number of new hires for the one year period beginning in FY 1997 and continuing thereafter.

(c) *Contracts.* Numerical goals set forth in paragraph (c) of this section apply to contracts awarded in connection with all section 3 covered projects and section 3 covered activities. Each recipient and contractor and subcontractor (unless the contract or subcontract awards do not meet the threshold specified in §135.3(a)(3)) may demonstrate compliance with the requirements of this part by committing to award to section 3 business concerns:

(1) At least 10 percent of the total dollar amount of all section 3 covered contracts for building trades work for maintenance, repair, modernization or development of public or Indian housing, or for building trades work arising in connection with housing rehabilitation, housing construction and other public construction; and

(2) At least three (3) percent of the total dollar amount of all other section 3 covered contracts.

(d) *Safe harbor and compliance determinations.* (1) In the absence of evidence to the contrary, a recipient that meets the minimum numerical goals set forth in this section will be considered to have complied with the section 3 preference requirements.

(2) In evaluating compliance under subpart D of this part, a recipient that has not met the numerical goals set forth in this section has the burden of demonstrating why it was not feasible to meet the numerical goals set forth in this section. Such justification may include impediments encountered despite actions taken. A recipient or contractor also can indicate other economic opportunities, such as those listed in §135.40, which were provided in its efforts to comply with section 3 and the requirements of this part.

§135.32 Responsibilities of the recipient.

Each recipient has the responsibility to comply with section 3 in its own operations, and ensure compliance in the operations of its contractors and subcontractors. This responsibility includes but may not be necessarily limited to:

(a) Implementing procedures designed to notify section 3 residents about training and employment opportunities generated by section 3 covered assistance and section 3 business concerns about contracting opportunities generated by section 3 covered assistance;

(b) Notifying potential contractors for section 3 covered projects of the requirements of this part, and incorporating the section 3 clause set forth in §135.38 in all solicitations and contracts.

(c) Facilitating the training and employment of section 3 residents and the award of contracts to section 3 business concerns by undertaking activities such as described in the Appendix to this part, as appropriate, to reach the goals set forth in §135.30. Recipients, at their own discretion, may establish reasonable numerical goals for the training and employment of section 3 residents and contract award to section 3 business concerns that exceed those specified in §135.30;

(d) Assisting and actively cooperating with the Assistant Secretary in obtaining the compliance of contractors and subcontractors with the requirements of this part, and refraining from entering into any contract with any contractor where the recipient has notice or knowledge that the contractor has been found in violation of the regulations in 24 CFR part 135.

(e) Documenting actions taken to comply with the requirements of this part, the results of actions taken and impediments, if any.

(f) A State or county which distributes funds for section 3 covered assistance to units of local governments, to the greatest extent feasible, must attempt to reach the numerical goals set forth in 135.30 regardless of the number of local governments receiving funds from the section 3 covered assistance which meet the thresholds for applicability set forth at 135.3. The State or county must inform units of local government to whom funds are distributed of the requirements of this part; assist

local governments and their contractors in meeting the requirements and objectives of this part; and monitor the performance of local governments with respect to the objectives and requirements of this part.

§ 135.34 Preference for section 3 residents in training and employment opportunities.

(a) *Order of providing preference.* Recipients, contractors and subcontractors shall direct their efforts to provide, to the greatest extent feasible, training and employment opportunities generated from the expenditure of section 3 covered assistance to section 3 residents in the order of priority provided in paragraph (a) of this section.

(1) *Public and Indian housing programs.* In public and Indian housing programs, efforts shall be directed to provide training and employment opportunities to section 3 residents in the following order of priority:

(i) Residents of the housing development or developments for which the section 3 covered assistance is expended (category 1 residents);

(ii) Residents of other housing developments managed by the HA that is expending the section 3 covered housing assistance (category 2 residents);

(iii) Participants in HUD Youthbuild programs being carried out in the metropolitan area (or nonmetropolitan county) in which the section 3 covered assistance is expended (category 3 residents);

(iv) Other section 3 residents.

(2) *Housing and community development programs.* In housing and community development programs, priority consideration shall be given, where feasible, to:

(i) Section 3 residents residing in the service area or neighborhood in which the section 3 covered project is located (collectively, referred to as category 1 residents); and

(ii) Participants in HUD Youthbuild programs (category 2 residents).

(iii) Where the section 3 project is assisted under the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11301 *et seq.*), homeless persons residing in the service area or neighborhood in which the section 3 covered project is located shall be given the highest priority;

(iv) Other section 3 residents.

(3) Recipients of housing assistance programs administered by the Assistant Secretary for Housing may, at their own discretion, provide preference to residents of the housing development receiving the section 3 covered assistance within the service area or neighborhood where the section 3 covered project is located.

(4) Recipients of community development programs may, at their own discretion, provide priority to recipients of government assistance for housing, including recipients of certificates or vouchers under the Section 8 housing assistance program, within the service area or neighborhood where the section 3 covered project is located.

(b) *Eligibility for preference.* A section 3 resident seeking the preference in training and employment provided by this part shall certify, or submit evidence to the recipient contractor or subcontractor, if requested, that the person is a section 3 resident, as defined in § 135.5. (An example of evidence of eligibility for the preference is evidence of receipt of public assistance, or evidence of participation in a public assistance program.)

(c) *Eligibility for employment.* Nothing in this part shall be construed to require the employment of a section 3 resident who does not meet the qualifications of the position to be filled.

§ 135.36 Preference for section 3 business concerns in contracting opportunities.

(a) *Order of providing preference.* Recipients, contractors and subcontractors shall direct their efforts to award section 3 covered contracts, to the greatest extent feasible, to section 3 business concerns in the order of priority provided in paragraph (a) of this section.

(1) *Public and Indian housing programs.* In public and Indian housing programs, efforts shall be directed to award contracts to section 3 business concerns in the following order of priority:

(i) Business concerns that are 51 percent or more owned by residents of the housing development or developments

for which the section 3 covered assistance is expended, or whose full-time, permanent workforce includes 30 percent of these persons as employees (category 1 businesses);

(ii) Business concerns that are 51 percent or more owned by residents of other housing developments or developments managed by the HA that is expending the section 3 covered assistance, or whose full-time, permanent workforce includes 30 percent of these persons as employees (category 2 businesses); or

(iii) HUD Youthbuild programs being carried out in the metropolitan area (or nonmetropolitan county) in which the section 3 covered assistance is expended (category 3 businesses).

(iv) Business concerns that are 51 percent or more owned by section 3 residents, or whose permanent, full-time workforce includes no less than 30 percent section 3 residents (category 4 businesses), or that subcontract in excess of 25 percent of the total amount of subcontracts to business concerns identified in paragraphs (a)(1)(i) and (a)(1)(ii) of this section.

(2) *Housing and community development programs.* In housing and community development programs, priority consideration shall be given, where feasible, to:

(i) Section 3 business concerns that provide economic opportunities for section 3 residents in the service area or neighborhood in which the section 3 covered project is located (category 1 businesses); and

(ii) Applicants (as this term is defined in 42 U.S.C. 12899) selected to carry out HUD Youthbuild programs (category 2 businesses);

(iii) Other section 3 business concerns.

(b) *Eligibility for preference.* A business concern seeking to qualify for a section 3 contracting preference shall certify or submit evidence, if requested, that the business concern is a section 3 business concern as defined in §135.5.

(c) *Ability to complete contract.* A section 3 business concern seeking a contract or a subcontract shall submit evidence to the recipient, contractor, or subcontractor (as applicable), if requested, sufficient to demonstrate to the satisfaction of the party awarding the contract that the business concern is responsible and has the ability to perform successfully under the terms and conditions of the proposed contract. (The ability to perform successfully under the terms and conditions of the proposed contract is required of all contractors and subcontractors subject to the procurement standards of 24 CFR 85.36 (see 24 CFR 85.36(b)(8)).) This regulation requires consideration of, among other factors, the potential contractor's record in complying with public policy requirements. Section 3 compliance is a matter properly considered as part of this determination.

§135.38 Section 3 clause.

All section 3 covered contracts shall include the following clause (referred to as the section 3 clause):

A. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR

part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.

E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.

F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

§ 135.40 Providing other economic opportunities.

(a) *General.* In accordance with the findings of the Congress, as stated in section 3, that other economic opportunities offer an effective means of empowering low-income persons, a recipient is encouraged to undertake efforts to provide to low-income persons economic opportunities other than training, employment, and contract awards, in connection with section 3 covered assistance.

(b) *Other training and employment related opportunities.* Other economic opportunities to train and employ section 3 residents include, but need not be limited to, use of "upward mobility", "bridge" and trainee positions to fill vacancies; hiring section 3 residents in management and maintenance positions within other housing developments; and hiring section 3 residents in part-time positions.

(c) *Other business related economic opportunities.* (1) A recipient or contractor may provide economic opportunities to establish, stabilize or expand section 3 business concerns, including micro-enterprises. Such opportunities include, but are not limited to the formation of section 3 joint ventures, financial support for affiliating with franchise development, use of labor only contracts for building trades, purchase of supplies and materials from housing authority resident-owned businesses, purchase of materials and supplies from PHA resident-owned businesses and use of procedures under 24 CFR part 963 regarding HA contracts to HA resident-owned businesses. A recipient or contractor may employ these methods directly or may provide incentives to non-section 3 businesses to utilize such methods to provide other economic opportunities to low-income persons.

(2) A *section 3 joint venture* means an association of business concerns, one of which qualifies as a section 3 business concern, formed by written joint venture agreement to engage in and carry out a specific business venture for which purpose the business concerns combine their efforts, resources, and skills for joint profit, but not necessarily on a continuing or permanent basis for conducting business generally, and for which the section 3 business concern:

(i) Is responsible for a clearly defined portion of the work to be performed and holds management responsibilities in the joint venture; and

(ii) Performs at least 25 percent of the work and is contractually entitled to compensation proportionate to its work.

Subpart C [Reserved]

Subpart D—Complaint and Compliance Review

§ 135.70 General.

(a) *Purpose.* The purpose of this subpart is to establish the procedures for handling complaints alleging noncompliance with the regulations of this

part, and the procedures governing the Assistant Secretary's review of a recipient's or contractor's compliance with the regulations in this part.

(b) *Definitions.* For purposes of this subpart:

(1) *Complaint* means an allegation of noncompliance with regulations of this part made in the form described in §135.76(d).

(2) *Complainant* means the party which files a complaint with the Assistant Secretary alleging that a recipient or contractor has failed or refused to comply with the regulations in this part.

(3) *Noncompliance with section 3* means failure by a recipient or contractor to comply with the requirements of this part.

(4) *Respondent* means the recipient or contractor against which a complaint of noncompliance has been filed. The term "recipient" shall have the meaning set forth in §135.7, which includes PHA and IHA.

§135.72 Cooperation in achieving compliance.

(a) The Assistant Secretary recognizes that the success of ensuring that section 3 residents and section 3 business concerns have the opportunity to apply for jobs and to bid for contracts generated by covered HUD financial assistance depends upon the cooperation and assistance of HUD recipients and their contractors and subcontractors. All recipients shall cooperate fully and promptly with the Assistant Secretary in section 3 compliance reviews, in investigations of allegations of noncompliance made under §135.76, and with the distribution and collection of data and information that the Assistant Secretary may require in connection with achieving the economic objectives of section 3.

(b) The recipient shall refrain from entering into a contract with any contractor after notification to the recipient by HUD that the contractor has been found in violation of the regulations in this part. The provisions of 24 CFR part 24 apply to the employment, engagement of services, awarding of contracts or funding of any contractors or subcontractors during any period of debarment, suspension or otherwise ineligible status.

§135.74 Section 3 compliance review procedures.

(a) *Compliance reviews by Assistant Secretary.* The Assistant Secretary shall periodically conduct section 3 compliance reviews of selected recipients and contractors to determine whether these recipients are in compliance with the regulations in this part.

(b) *Form of compliance review.* A section 3 compliance review shall consist of a comprehensive analysis and evaluation of the recipient's or contractor's compliance with the requirements and obligations imposed by the regulations of this part, including an analysis of the extent to which section 3 residents have been hired and section 3 business concerns have been awarded contracts as a result of the methods undertaken by the recipient to achieve the employment, contracting and other economic objectives of section 3.

(c) *Where compliance review reveals noncompliance with section 3 by recipient or contractor.* Where the section 3 compliance review reveals that a recipient or contractor has not complied with section 3, the Assistant Secretary shall notify the recipient or contractor of its specific deficiencies in compliance with the regulations of this part, and shall advise the recipient or contractor of the means by which these deficiencies may be corrected. HUD shall conduct a follow-up review with the recipient or contractor to ensure that action is being taken to correct the deficiencies.

(d) *Continuing noncompliance by recipient or contractor.* A continuing failure or refusal by the recipient or contractor to comply with the regulations in this part may result in the application of sanctions specified in the contract through which HUD assistance is provided, or the application of sanctions specified in the regulations governing the HUD program under which HUD financial assistance is provided. HUD will notify the recipient of any continuing failure or refusal by the contractor to comply with the regulations in this part for possible action under any procurement contract between the recipient and the contractor.

Debarment, suspension and limited denial of participation pursuant to HUD's regulations in 24 CFR part 24, where appropriate, may be applied to the recipient or the contractor.

(e) *Conducting compliance review before the award of assistance.* Section 3 compliance reviews may be conducted before the award of contracts, and especially where the Assistant Secretary has reasonable grounds to believe that the recipient or contractor will be unable or unwilling to comply with the regulations in this part.

(f) *Consideration of complaints during compliance review.* Complaints alleging noncompliance with section 3, as provided in §135.76, may also be considered during any compliance review conducted to determine the recipient's conformance with regulations in this part.

§ 135.76 Filing and processing complaints.

(a) *Who may file a complaint.* The following individuals and business concerns may, personally or through an authorized representative, file with the Assistant Secretary a complaint alleging noncompliance with section 3:

(1) Any section 3 resident on behalf of himself or herself, or as a representative of persons similarly situated, seeking employment, training or other economic opportunities generated from the expenditure of section 3 covered assistance with a recipient or contractor, or by a representative who is not a section 3 resident but who represents one or more section 3 residents;

(2) Any section 3 business concern on behalf of itself, or as a representative of other section 3 business concerns similarly situated, seeking contract opportunities generated from the expenditure of section 3 covered assistance from a recipient or contractor, or by an individual representative of section 3 business concerns.

(b) *Where to file a complaint.* A complaint must be filed with the Assistant Secretary for Fair Housing and Equal Opportunity, Department of Housing and Urban Development, Washington, DC, 20410.

(c) *Time of filing.* (1) A complaint must be received not later than 180 days from the date of the action or omission upon which the complaint is based, unless the time for filing is extended by the Assistant Secretary for good cause shown.

(2) Where a complaint alleges noncompliance with section 3 and the regulations of this part that is continuing, as manifested in a number of incidents of noncompliance, the complaint will be timely if filed within 180 days of the last alleged occurrence of noncompliance.

(3) Where a complaint contains incomplete information, the Assistant Secretary shall request the needed information from the complainant. In the event this information is not furnished to the Assistant Secretary within sixty (60) days of the date of the request, the complaint may be closed.

(d) *Contents of complaint*—(1) *Written complaints.* Each complaint must be in writing, signed by the complainant, and include:

(i) The complainant's name and address;

(ii) The name and address of the respondent;

(iii) A description of the acts or omissions by the respondent that is sufficient to inform the Assistant Secretary of the nature and date of the alleged noncompliance.

(iv) A complainant may provide information to be contained in a complaint by telephone to HUD or any HUD Field Office, and HUD will reduce the information provided by telephone to writing on the prescribed complaint form and send the form to the complainant for signature.

(2) *Amendment of complaint.* Complaints may be reasonably and fairly amended at any time. Such amendments may include, but are not limited to, amendments to cure, technical defects or omissions, including failure to sign or affirm a complaint, to clarify or amplify the allegations in a complaint, or to join additional or substitute respondents. Except for the purposes of notifying respondents, amended complaints will be considered as having been made as of the original filing date.

(e) *Resolution of complaint by recipient.* (1) Within ten (10) days of timely filing of a complaint that contains complete

information (in accordance with paragraphs (c) and (d) of this section), the Assistant Secretary shall determine whether the complainant alleges an action or omission by a recipient or the recipient's contractor that if proven qualifies as noncompliance with section 3. If a determination is made that there is an allegation of noncompliance with section 3, the complaint shall be sent to the recipient for resolution.

(2) If the recipient believes that the complaint lacks merit, the recipient must notify the Assistant Secretary in writing of this recommendation with supporting reasons, within 30 days of the date of receipt of the complaint. The determination that a complaint lacks merit is reserved to the Assistant Secretary.

(3) If the recipient determines that there is merit to the complaint, the recipient will have sixty (60) days from the date of receipt of the complaint to resolve the matter with the complainant. At the expiration of the 60-day period, the recipient must notify the Assistant Secretary in writing whether a resolution of the complaint has been reached. If resolution has been reached, the notification must be signed by both the recipient and the complainant, and must summarize the terms of the resolution reached between the two parties.

(4) Any request for an extension of the 60-day period by the recipient must be submitted in writing to the Assistant Secretary, and must include a statement explaining the need for the extension.

(5) If the recipient is unable to resolve the complaint within the 60-day period (or more if extended by the Assistant Secretary), the complaint shall be referred to the Assistant Secretary for handling.

(f) *Informal resolution of complaint by Assistant Secretary*—(1) *Dismissal of complaint.* Upon receipt of the recipient's written recommendation that there is no merit to the complaint, or upon failure of the recipient and complainant to reach resolution, the Assistant Secretary shall review the complaint to determine whether it presents a valid allegation of noncompliance with section 3. The Assistant Secretary may conduct further investigation if deemed necessary. Where the complaint fails to present a valid allegation of noncompliance with section 3, the Assistant Secretary will dismiss the complaint without further action. The Assistant Secretary shall notify the complainant of the dismissal of the complaint and the reasons for the dismissal.

(2) *Informal resolution.* Where the allegations in a complaint on their face, or as amplified by the statements of the complainant, present a valid allegation of noncompliance with section 3, the Assistant Secretary will attempt, through informal methods, to obtain a voluntary and just resolution of the complaint. Where attempts to resolve the complaint informally fail, the Assistant Secretary will impose a resolution on the recipient and complainant. Any resolution imposed by the Assistant Secretary will be in accordance with requirements and procedures concerning the imposition of sanctions or resolutions as set forth in the regulations governing the HUD program under which the section 3 covered assistance was provided.

(3) *Effective date of informal resolution.* The imposed resolution will become effective and binding at the expiration of 15 days following notification to recipient and complainant by certified mail of the imposed resolution, unless either party appeals the resolution before the expiration of the 15 days. Any appeal shall be in writing to the Secretary and shall include the basis for the appeal.

(g) *Sanctions.* Sanctions that may be imposed on recipients that fail to comply with the regulations of this part include debarment, suspension and limited denial of participation in HUD programs.

(h) *Investigation of complaint.* The Assistant Secretary reserves the right to investigate a complaint directly when, in the Assistant Secretary's discretion, the investigation would further the purposes of section 3 and this part.

(i) *Intimidatory or retaliatory acts prohibited.* No recipient or other person shall intimidate, threaten, coerce, or discriminate against any person or business because the person or business has made a complaint, testified, assisted or participated in any manner in an investigation, proceeding, or hearing under this part. The identity of

complainants shall be kept confidential except to the extent necessary to carry out the purposes of this part, including the conduct of any investigation, hearing or judicial proceeding arising thereunder.

(j) *Judicial relief.* Nothing in this subpart D precludes a section 3 resident or section 3 business concerning from exercising the right, which may otherwise be available, to seek redress directly through judicial procedures.

(Approved by the Office of Management and Budget under control number 2529–0043)

Subpart E—Reporting and Recordkeeping

§ 135.90 Reporting.

Each recipient which receives directly from HUD financial assistance that is subject to the requirements of this part shall submit to the Assistant Secretary an annual report in such form and with such information as the Assistant Secretary may request, for the purpose of determining the effectiveness of section 3. Where the program providing the section 3 covered assistance requires submission of an annual performance report, the section 3 report will be submitted with that annual performance report. If the program providing the section 3 covered assistance does not require an annual performance report, the section 3 report is to be submitted by January 10 of each year or within 10 days of project completion, whichever is earlier. All reports submitted to HUD in accordance with the requirements of this part will be made available to the public.

(Approved by the Office of Management and Budget under control number 2529–0043)

§ 135.92 Recordkeeping and access to records.

HUD shall have access to all records, reports, and other documents or items of the recipient that are maintained to demonstrate compliance with the requirements of this part, or that are maintained in accordance with the regulations governing the specific HUD program under which section 3 covered assistance is provided or otherwise made available to the recipient or contractor.

APPENDIX TO PART 135

I. Examples of Efforts To Offer Training and Employment Opportunities to Section 3 Residents

(1) Entering into "first source" hiring agreements with organizations representing Section 3 residents.

(2) Sponsoring a HUD-certified "Step-Up" employment and training program for section 3 residents.

(3) Establishing training programs, which are consistent with the requirements of the Department of Labor, for public and Indian housing residents and other section 3 residents in the building trades.

(4) Advertising the training and employment positions by distributing flyers (which identify the positions to be filled, the qualifications required, and where to obtain additional information about the application process) to every occupied dwelling unit in the housing development or developments where category 1 or category 2 persons (as these terms are defined in § 135.34) reside.

(5) Advertising the training and employment positions by posting flyers (which identify the positions to be filled, the qualifications required, and where to obtain additional information about the application process) in the common areas or other prominent areas of the housing development or developments. For HAs, post such advertising in the housing development or developments where category 1 or category 2 persons reside; for all other recipients, post such advertising in the housing development or developments and transitional housing in the neighborhood or service area of the section 3 covered project.

(6) Contacting resident councils, resident management corporations, or other resident organizations, where they exist, in the housing development or developments where category 1 or category 2 persons reside, and community organizations in HUD-assisted neighborhoods, to request the assistance of these organizations in notifying residents of the training and employment positions to be filled.

(7) Sponsoring (scheduling, advertising, financing or providing in-kind services) a job informational meeting to be conducted by an HA or contractor representative or representatives at a location in the housing development or developments where category 1 or category 2 persons reside or in the neighborhood or service area of the section 3 covered project.

(8) Arranging assistance in conducting job interviews and completing job applications for residents of the housing development or developments where category 1 or category 2

persons reside and in the neighborhood or service area in which a section 3 project is located.

(9) Arranging for a location in the housing development or developments where category 1 persons reside, or the neighborhood or service area of the project, where job applications may be delivered to and collected by a recipient or contractor representative or representatives.

(10) Conducting job interviews at the housing development or developments where category 1 or category 2 persons reside, or at a location within the neighborhood or service area of the section 3 covered project.

(11) Contacting agencies administering HUD Youthbuild programs, and requesting their assistance in recruiting HUD Youthbuild program participants for the HA's or contractor's training and employment positions.

(12) Consulting with State and local agencies administering training programs funded through JTPA or JOBS, probation and parole agencies, unemployment compensation programs, community organizations and other officials or organizations to assist with recruiting Section 3 residents for the HA's or contractor's training and employment positions.

(13) Advertising the jobs to be filled through the local media, such as community television networks, newspapers of general circulation, and radio advertising.

(14) Employing a job coordinator, or contracting with a business concern that is licensed in the field of job placement (preferably one of the section 3 business concerns identified in part 135), that will undertake, on behalf of the HA, other recipient or contractor, the efforts to match eligible and qualified section 3 residents with the training and employment positions that the HA or contractor intends to fill.

(15) For an HA, employing section 3 residents directly on either a permanent or a temporary basis to perform work generated by section 3 assistance. (This type of employment is referred to as "force account labor" in HUD's Indian housing regulations. See 24 CFR 905.102, and §905.201(a)(6).)

(16) Where there are more qualified section 3 residents than there are positions to be filled, maintaining a file of eligible qualified section 3 residents for future employment positions.

(17) Undertaking job counseling, education and related programs in association with local educational institutions.

(18) Undertaking such continued job training efforts as may be necessary to ensure the continued employment of section 3 residents previously hired for employment opportunities.

(19) After selection of bidders but prior to execution of contracts, incorporating into the contract a negotiated provision for a specific number of public housing or other section 3 residents to be trained or employed on the section 3 covered assistance.

(20) Coordinating plans and implementation of economic development (e.g., job training and preparation, business development assistance for residents) with the planning for housing and community development.

II. Examples of Efforts To Award Contracts to Section 3 Business Concerns

(1) Utilizing procurement procedures for section 3 business concerns similar to those provided in 24 CFR part 905 for business concerns owned by Native Americans (see section III of this Appendix).

(2) In determining the responsibility of potential contractors, consider their record of section 3 compliance as evidenced by past actions and their current plans for the pending contract.

(3) Contacting business assistance agencies, minority contractors associations and community organizations to inform them of contracting opportunities and requesting their assistance in identifying section 3 businesses which may solicit bids or proposals for contracts for work in connection with section 3 covered assistance.

(4) Advertising contracting opportunities by posting notices, which provide general information about the work to be contracted and where to obtain additional information, in the common areas or other prominent areas of the housing development or developments owned and managed by the HA.

(5) For HAs, contacting resident councils, resident management corporations, or other resident organizations, where they exist, and requesting their assistance in identifying category 1 and category 2 business concerns.

(6) Providing written notice to all known section 3 business concerns of the contracting opportunities. This notice should be in sufficient time to allow the section 3 business concerns to respond to the bid invitations or request for proposals.

(7) Following up with section 3 business concerns that have expressed interest in the contracting opportunities by contacting them to provide additional information on the contracting opportunities.

(8) Coordinating pre-bid meetings at which section 3 business concerns could be informed of upcoming contracting and subcontracting opportunities.

(9) Carrying out workshops on contracting procedures and specific contract opportunities in a timely manner so that section 3 business concerns can take advantage of upcoming contracting opportunities, with such information being made available in languages other than English where appropriate.

(10) Advising section 3 business concerns as to where they may seek assistance to overcome limitations such as inability to obtain bonding, lines of credit, financing, or insurance.

(11) Arranging solicitations, times for the presentation of bids, quantities, specifications, and delivery schedules in ways to facilitate the participation of section 3 business concerns.

(12) Where appropriate, breaking out contract work items into economically feasible units to facilitate participation by section 3 business concerns.

(13) Contacting agencies administering HUD Youthbuild programs, and notifying these agencies of the contracting opportunities.

(14) Advertising the contracting opportunities through trade association papers and newsletters, and through the local media, such as community television networks, newspapers of general circulation, and radio advertising.

(15) Developing a list of eligible section 3 business concerns.

(16) For HAs, participating in the "Contracting with Resident-Owned Businesses" program provided under 24 CFR part 963.

(17) Establishing or sponsoring programs designed to assist residents of public or Indian housing in the creation and development of resident-owned businesses.

(18) Establishing numerical goals (number of awards and dollar amount of contracts) for award of contracts to section 3 business concerns.

(19) Supporting businesses which provide economic opportunities to low income persons by linking them to the support services available through the Small Business Administration (SBA), the Department of Commerce and comparable agencies at the State and local levels.

(20) Encouraging financial institutions, in carrying out their responsibilities under the Community Reinvestment Act, to provide no or low interest loans for providing working capital and other financial business needs.

(21) Actively supporting joint ventures with section 3 business concerns.

(22) Actively supporting the development or maintenance of business incubators which assist Section 3 business concerns.

III. Examples of Procurement Procedures That Provide for Preference for Section 3 Business Concerns

This Section III provides specific procedures that may be followed by recipients and contractors (collectively, referred to as the "contracting party") for implementing the section 3 contracting preference for each of the competitive procurement methods authorized in 24 CFR 85.36(d).

(1) *Small Purchase Procedures.* For section 3 covered contracts aggregating no more than $25,000, the methods set forth in this paragraph (1) or the more formal procedures set forth in paragraphs (2) and (3) of this Section III may be utilized.

(i) *Solicitation.* (A) Quotations may be solicited by telephone, letter or other informal procedure provided that the manner of solicitation provides for participation by a reasonable number of competitive sources. At the time of solicitation, the parties must be informed of:

—the section 3 covered contract to be awarded with sufficient specificity;

—the time within which quotations must be submitted; and

—the information that must be submitted with each quotation.

(B) If the method described in paragraph (i)(A) is utilized, there must be an attempt to obtain quotations from a minimum of three qualified sources in order to promote competition. Fewer than three quotations are acceptable when the contracting party has attempted, but has been unable, to obtain a sufficient number of competitive quotations. In unusual circumstances, the contracting party may accept the sole quotation received in response to a solicitation provided the price is reasonable. In all cases, the contracting party shall document the circumstances when it has been unable to obtain at least three quotations.

(ii) *Award.* (A) Where the section 3 covered contract is to be awarded based upon the lowest price, the contract shall be awarded to the qualified section 3 business concern with the lowest responsive quotation, if it is reasonable and no more than 10 percent higher than the quotation of the lowest responsive quotation from any qualified source. If no responsive quotation by a qualified section 3 business concern is within 10 percent of the lowest responsive quotation from any qualified source, the award shall be made to the source with the lowest quotation.

(B) Where the section 3 covered contract is to be awarded based on factors other than price, a request for quotations shall be issued by developing the particulars of the solicitation, including a rating system for the assignment of points to evaluate the merits of each quotation. The solicitation shall identify all factors to be considered, including price or cost. The rating system shall provide for a range of 15 to 25 percent of the total number of available rating points to be set aside for the provision of preference for section 3 business concerns. The purchase order shall be awarded to the responsible firm whose quotation is the most advantageous, considering price and all other factors specified in the rating system.

(2) *Procurement by sealed bids (Invitations for Bids).* Preference in the award of section 3 covered contracts that are awarded under a sealed bid (IFB) process may be provided as follows:

(i) Bids shall be solicited from all businesses (section 3 business concerns, and non-section 3 business concerns). An award shall be made to the qualified section 3 business concern with the highest priority ranking and with the lowest responsive bid if that bid—

(A) is within the maximum total contract price established in the contracting party's budget for the specific project for which bids are being taken, and

(B) is not more than "X" higher than the total bid price of the lowest responsive bid from any responsible bidder. "X" is determined as follows:

	x=lesser of:
When the lowest responsive bid is less than $100,000	10% of that bid or $9,000.
When the lowest responsive bid is:	
At least $100,000, but less than $200,000	9% of that bid, or $16,000.
At least $200,000, but less than $300,000	8% of that bid, or $21,000.
At least $300,000, but less than $400,000	7% of that bid, or $24,000.
At least $400,000, but less than $500,000	6% of that bid, or $25,000.
At least $500,000, but less than $1 million	5% of that bid, or $40,000.
At least $1 million, but less than $2 million	4% of that bid, or $60,000.
At least $2 million, but less than $4 million	3% of that bid, or $80,000.
At least $4 million, but less than $7 million	2% of that bid, or $105,000.
$7 million or more	1½% of the lowest responsive bid, with no dollar limit.

(ii) If no responsive bid by a section 3 business concern meets the requirements of paragraph (2)(i) of this section, the contract shall be awarded to a responsible bidder with the lowest responsive bid.

(3) *Procurement under the competitive proposals method of procurement (Request for Proposals (RFP)).* (i) For contracts and subcontracts awarded under the competitive proposals method of procurement (24 CFR 85.36(d)(3)), a Request for Proposals (RFP) shall identify all evaluation factors (and their relative importance) to be used to rate proposals.

(ii) One of the evaluation factors shall address both the preference for section 3 business concerns and the acceptability of the strategy for meeting the greatest extent feasible requirement (section 3 strategy), as disclosed in proposals submitted by all business concerns (section 3 and non-section 3 business concerns). This factor shall provide for a range of 15 to 25 percent of the total number of available points to be set aside for the evaluation of these two components.

(iii) The component of this evaluation factor designed to address the preference for section 3 business concerns must establish a preference for these business concerns in the order of priority ranking as described in 24 CFR 135.36.

(iv) With respect to the second component (the acceptability of the section 3 strategy), the RFP shall require the disclosure of the contractor's section 3 strategy to comply with the section 3 training and employment preference, or contracting preference, or both, if applicable. A determination of the contractor's responsibility will include the submission of an acceptable section 3 strategy. The contract award shall be made to the responsible firm (either section 3 or non-section 3 business concern) whose proposal is determined most advantageous, considering price and all other factors specified in the RFP.

PART 146—NONDISCRIMINATION ON THE BASIS OF AGE IN HUD PROGRAMS OR ACTIVITIES RECEIVING FEDERAL FINANCIAL ASSISTANCE

Subpart A—General

Sec.

146.1 Purpose of the Age Discrimination Act of 1975.
146.3 Purpose of HUD's age discrimination regulation.
146.5 Applicability of part.
146.7 Definitions.

Subpart B—Standards for Determining Age Discrimination

146.11 Scope of subpart.
146.13 Rules against age discrimination.

Subpart C—Duties of HUD Recipients

146.21 General responsibilities.
146.23 Notice of subrecipients.
146.25 Assurance of compliance and recipient assessment of age distinctions.
146.27 Information requirements.

Subpart D—Investigation, Settlement, and Enforcement Procedures

146.31 Compliance reviews.
146.33 Complaints.
146.35 Mediation.
146.37 Investigation.
146.39 Enforcement procedures.
146.41 Prohibition against intimidation or retaliation.

CERTIFICATE OF CONSTRUCTION COMPLETION

This is to certify that on the _____ day of _____, 20____ , a FINAL INSPECTION was made of the project herein described as:

CONTRACT

DATE:_____

OWNER: Precinct No. 1

CONSTRUCTION CONTRACTOR: _____ of the City of _____State of Texas.

PROJECT DESCRIPTION

CONSTRUCTION OF: Paving and Drainage Improvements to: Spanish Palms Subdivision

UCP CONTRACT NO.: 2015-256-08-12-MSS

located in or near the City/Pct. of: Hidalgo County Precinct 1, Texas

THIS IS TO CERTIFY:

1. That the work has been completed in accordance with the plans and specifications and all addendum(s), change order(s), supplemental agreement(s) thereto, and with the following exceptions: None

2. That the sum of 0.00 zero ($ 0.00), deducted from the final payment of the Contractor is a fair and equitable settlement for the foregoing except work.

3. That the contractor has presented a "Certificate of Release" stating under oath, that all claims arising out of the performance of work have been fulfilled, and the OWNER is released from all claims arising under or by virtue of said contract.

4. That the CONTRACTOR has presented in behalf of itself and its sureties, satisfactory evidence that it is bound to repair, replace, and make good any faulty workmanship and/or materials discovered in the work within a period of one year from this date, as provided in said contract.

5.

Amount of Original Contract:	$_____
Present Amount of Contract:	$_____
Total Amount of earned to date:	$_____
Less: previous payments:	$_____
Balance:	$_____
Authorized deductions:	$_____
AMOUNT OF FINAL PAYMENT:	$_____

6. That the final payment in the amount _____ _____ is now due and payable.

_____
Architect/Engineer Signature

BY:_____
(Print Name)

TITLE:_____

CONCURRED BY:

_____
Contractor's Name

BY: _____

TITLE:_____

CONCURRED BY:

_____
Urban County Program

BY: Diana R. Serna

TITLE: UCP Director

CONTRACTOR'S FINAL RELEASE WAIVER OF LIENS, AND AUTHORIZATION TO DISBURSE FUNDS

THE STATE OF TEXAS {
{
COUNTY OF HIDALGO {

_____,doing business as _____, hereinafter "Contractor," for good and valuable consideration, the receipt of which is hereby acknowledged, **hereby unconditionally waives and releases: (i) any claim he now has or hereafter may have against Owner (herein defined) and the County of Hidalgo, State of Texas; and (ii) any and all liens and claims or rights of lien which he now has or hereafter may have upon the real property described on Exhibit "A" attached hereto and made a part hereof for all purposes, and on any personal property located on the real property collectively referred to as the "Property;"** on account of labor, materials, supplies, equipment, or otherwise, furnished by Contractor to, or on account of, or for the Property, pursuant to a contract, hereinafter "Contract," dated _____, among Contractor, Owner, and the County of Hidalgo, State of Texas. City of _____ hereinafter "Owner," is the owner of the Property on which Contractor furnished labor, materials, supplies and/or equipment pursuant to the Contract.

Contractor represents and warrants to Owner and the County of Hidalgo that the parties listed on Exhibit "B" hereto are all of the laborers, subcontractors and suppliers used by Contractor on the Property covered by the Contract. Contractor further represents and warrants to Owner that following Owner's payment of $_____through the County of Hidalgo to or on behalf of Contractor, Contractor has been paid the full amount due to Contractor under the Contract, and that Contractor: (i) has likewise paid all its laborers, subcontractors and suppliers who provided labor and materials or supplies or equipment, or any of them, or otherwise, in connection with the Contract; and/or (ii) hereby instructs the County of Hidalgo to pay directly to the parties listed on Exhibit "C" hereto, simultaneously with the execution and delivery of this release, the amount shown by such parties' names, said parties representing all the unpaid laborers, subcontractors and suppliers who provided labor or materials or supplies or equipment, or any of them or otherwise, in connection with the Contract. Contractor hereby authorizes Owner and the County of Hidalgo, as well as any escrow agents, construction agents, or title insurance companies, and their respective successors and assigns, to plead this release and waiver, to the extent it is applicable, in any suit or suits brought by Contractor, its successors, heirs, or assigns, or anyone claiming by, through or under the Contractor, to establish a claim against Owner and/or the County of Hidalgo, and/or to establish a lien upon the Property

(or to charge the same with any lien) for labor or materials or supplies or equipment, or any of them or otherwise, done, performed, furnished or delivered under the Contract.

Contractor understands and acknowledges that Owner and the County of Hidalgo are relying on the agreements, release, waivers and representations stated herein, and such agreements, release, waivers and representations are material inducements for the County of Hidalgo to release the funds it now holds related to the construction of improvements on the Property to the Contractor and/or directly to the laborers, subcontractors and suppliers listed on Exhibit "C" hereto.

Contractor understands and agrees that this release in no way discharges Contractor from his obligations of warranty of material and/or workmanship under the Contract. Without limiting the foregoing, Contractor represents and warrants to Owner that all work performed by him or under his direction on the Property has been completed in accordance with plans and specifications and the terms of the Contract.

The person signing this document represents that he or she is duly authorized to do so on behalf of the Contractor.

All of the provisions of this document shall be binding on the Contractor and his successors and assigns and shall inure to the benefit of Owner and the County of Hidalgo and their respective successors and assigns.

Executed effective as of the _____ day of _____,

_____
Signature

_____
Name and Title

THE STATE OF TEXAS {
{
COUNTY OF HIDALGO {

This instrument was acknowledged before me on this the _____ day of

_____, _____, by _____, _____
(title)

of and on behalf of _____.
(a corporation) (a partnership) (an individual)

_____
Notary Public, State of Texas

EXHIBIT "A"

EXHIBIT "B"

EXHIBIT "C"

SUB- CONTRACTOR'S FINAL RELEASE WAIVER OF LIENS, AND AUTHORIZATION TO DISBURSE FUNDS

THE STATE OF TEXAS {
{
COUNTY OF HIDALGO {

_____,doing business as _____, hereinafter " Sub-Contractor," for good and valuable consideration, the receipt of which is hereby acknowledged, **hereby unconditionally waives and releases: (i) any claim he now has or hereafter may have against Owner (herein defined) and the County of Hidalgo, State of Texas; and (ii) any and all liens and claims or rights of lien which he now has or hereafter may have upon the real property described on Exhibit "A" attached hereto and made a part hereof for all purposes, and on any personal property located on the real property collectively referred to as the "Property;"** on account of labor, materials, supplies, equipment, or otherwise, furnished by Sub-Contractor to, or on account of, or for the Property, pursuant to a contract, hereinafter "Contract," dated _____, among Contractor, Owner, and the County of Hidalgo, State of Texas. City of _____ hereinafter "Owner," is the owner of the Property on which Sub-Contractor furnished labor, materials, supplies and/or equipment pursuant to the Contract.

Sub-Contractor represents and warrants to Owner and the County of Hidalgo that the parties listed on Exhibit "B" hereto are all of the laborers, subcontractors and suppliers used by Contractor on the Property covered by the Contract. Sub- Contractor further represents and warrants to Owner that following Owner's payment of $ _____through the County of Hidalgo to or on behalf of Sub-Contractor, Sub-Contractor has been paid the full amount due to Sub-Contractor under the Contract, and that Sub-Contractor: (i) has likewise paid all its laborers, subcontractors and suppliers who provided labor and materials or supplies or equipment, or any of them, or otherwise, in connection with the Contract; and/or (ii) hereby instructs the County of Hidalgo to pay directly to the parties listed on Exhibit "C" hereto, simultaneously with the execution and delivery of this release, the amount shown by such parties' names, said parties representing all the unpaid laborers, subcontractors and suppliers who provided labor or materials or supplies or equipment, or any of them or otherwise, in connection with the Contract. Sub-Contractor hereby authorizes Owner and the County of Hidalgo, as well as any escrow agents, construction agents, or title insurance companies, and their respective successors and assigns, to plead this release and waiver, to the extent it is applicable, in any suit or suits brought by Sub-Contractor, its successors, heirs, or assigns, or anyone claiming by, through or under the Sub-Contractor, to establish a claim against

Owner and/or the County of Hidalgo, and/or to establish a lien upon the Property (or to charge the same with any lien) for labor or materials or supplies or equipment, or any of them or otherwise, done, performed, furnished or delivered under the Contract.

Sub-Contractor understands and acknowledges that Owner and the County of Hidalgo are relying on the agreements, release, waivers and representations stated herein, and such agreements, release, waivers and representations are material inducements for the County of Hidalgo to release the funds it now holds related to the construction of improvements on the Property to the Sub-Contractor and/or directly to the laborers, subcontractors and suppliers listed on Exhibit "C" hereto.

Sub-Contractor understands and agrees that this release in no way discharges Sub-Contractor from his obligations of warranty of material and/or workmanship under the Contract. Without limiting the foregoing, Sub-Contractor represents and warrants to Owner that all work performed by him or under his direction on the Property has been completed in accordance with plans and specifications and the terms of the Contract.

The person signing this document represents that he or she is duly authorized to do so on behalf of the Sub-Contractor.

All of the provisions of this document shall be binding on the Sub-Contractor and his successors and assigns and shall inure to the benefit of Owner and the County of Hidalgo and their respective successors and assigns.

Executed effective as of the _____ day of _____,

_____
Signature

_____
Name and Title

THE STATE OF TEXAS {
{
COUNTY OF HIDALGO {

This instrument was acknowledged before me on this the _____ day of

_____, _____, by _____, _____
(title)

of and on behalf of _____.
(a corporation) (a partnership) (an individual)

_____
Notary Public, State of Texas

EXHIBIT "A"

EXHIBIT "B"

CC REG. AGENDA 10/13/15

12-31-2015, i.e., DAY TO DAY PURCHASES, items necessary for daily operations;

c. Approval to notify all elected offices and departments that open purchase orders at 12-31-15 for which there is not a proper invoice and physical receipt of goods and/or services will be charged to the 2016 budgets.

B. Pct. 1

1. **AI-51739** A. Acceptance and approval of the construction contract documents for Hidalgo County Precinct No. 1: "Paving and Drainage Improvements to: Spanish Palms Subdivision" (CC award action AI-51023, 08/25/15) to 2GS, LLC, in the total amount of $259,364.00, for Contract # C-15-256-08-25 reviewed and approved as to form by Legal Counsel.

   B. Pursuant to TXLGC 262.031 and in the interest of expediting a project's progress, requesting authority/approval for the Precinct Commissioner or designee (Raul Lozano unless otherwise voiced by Commissioner) to execute change orders that involve ...'an increase or decrease in cost of $50,000.00 or LESS and in no event to exceed the Change Order's statutory limits'...The original contract price may not be decreased by 18% or more without the consent of the contractor.

2. **AI-51693** A. Acceptance and approval of an Interlocal Cooperation Agreement [ILA] between County of Hidalgo and City of Donna for the provision of joint efforts in connection with the improvements of Victoria Rd. from Business 83 to Expressway 83; and

   B. In accordance with Section 791.014-TGC, acceptance and approval of Interlocal Agreement Project: Improvements to Victoria Rd. from Business 83 to Expressway 83; whereas the County shall reconstruct the Road at County's expense as detailed in the agreement thus pursuant to the approval of the Interlocal Cooperation Agreement as stated above.

3. **AI-51470** Presentation of sole responsible vendor submitting the lowest and best bid [detailed in tabulation sheet contained herein & meeting specification and/or requirements] for the purpose of award and approval of contract for Request for Bids titled: Hidalgo County Precinct No.1 - " Purchase of RAP (Recycled/Reclaimed Asphalt Pavement) Material" through project No.: 2015-264-09-09-SGS.

4. **AI-51575** A. Requesting approval to purchase the following Backhoe loader through the County's membership/participation with BuyBoard's awarded vendor, Doggett (Contract #424-13) in the total amount of $ 59,230.00 which includes shipping and a one time administration fee $400.00(Project #2015-348-MEG).

   B. Requesting the surplus of a 2001-Terex Backhoe, Asset #37302 for the purpose of trade-in on the purchase authorized herein including the removal of said asset from Pct. #1 inventory.

   C. Trade in Terex 860 Backhoe in the amount 4,500.00